



Australian Government  
Director of National Parks



Kakadu Board  
of Management

# Kakadu National Park



M A N A G E M E N T P L A N 2 0 0 7 - 2 0 1 4





# Kakadu National Park



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This Management Plan provides the general public and Park users/visitors with information about how the Park will be managed for the next seven years. An electronic copy of this Plan is at <http://www.environment.gov.au/parks/publications/index.html> and additional hard copies are available from the Department of the Environment and Water Resources Community Information Unit (phone 1800 803 772).

**Note:** Throughout this document, the term **Bininj** is used to refer to traditional owners of Aboriginal land and traditional owners of other land in the 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.

**Bininj** is a Kunwinjku and Gundjeihmi word, pronounced 'binn-ing'. This word is similar to the English word 'man' and can mean man, male, person or Aboriginal people, depending on the context. The word for woman in these languages is *Daluk*. Other languages in Kakadu National Park have other words with these meanings, for example the Jawoyn word for man is *Mungguy* and for woman is *Alumka*, and the Limilngan word for man is *Murlugan* and *Ugin-j* for woman. The Board of Management has agreed to use the term **Bininj** for the purposes of this Management Plan.

**Cover design:** The cover design represents the natural, cultural, visitor experience and joint management values, and future, of Kakadu National Park as well as the importance placed on younger generations having opportunities to appreciate and understand these values. The artwork was supplied by students from the Jabiru, Pine Creek, and Kunbarllanja (Oenpelli) area schools. The Kakadu National Park Board of Management expresses its thanks to the students and schools for providing this artwork.

**K**akadu is Aboriginal land. We Aboriginal people have obligations to care for our country, to look after *djang*, to communicate with our ancestors when on country and to teach all of this to future generations.

Aboriginal people and Park managers are walking together, side by side, to look after Kakadu country, look after culture.

## Vision

**The vision for Kakadu National Park is that it is one of the great World Heritage areas recognised internationally as a place where:**

- the cultural and natural heritage of the Park is protected and the living culture of Bininj is respected
- Bininj guide and are involved in all aspects of managing the Park
- knowledge about country and culture is passed on to younger Bininj
- tourism is culturally, environmentally and socially sustainable.

## Guiding principles

**The guiding principles for the management of Kakadu National Park are that:**

- culture, country, sacred places and customary law are one, extend beyond the boundaries of Kakadu, and need to be protected and respected
- Bininj and Balanda keep joint management strong by working together, sharing decision-making, learning from and respecting each other
- young Bininj have opportunities to learn about culture and country
- Bininj and Park management share obligations to look after the natural and cultural values of the Park
- tourism is developed at a pace and level determined by Bininj, and strong partnerships are maintained with the tourism industry
- visitors are provided with opportunities for safe, enriching and memorable experiences.

## Foreword

Kakadu National Park is, and always has been, Bininj land. The evidence for this is in the World Heritage rock art and archaeological sites throughout the Park and Bininj people's traditional connection to land and our culture. The long and continuing history of Bininj custodianship of Kakadu is one of the most important things about the Park, recognised in its World Heritage listing.

Traditional owners and managers of Kakadu have strong responsibilities and obligations to care for country and to guide and look after visitors.

Since the late 1970s, traditional owners have leased back their country to the Director of National Parks as part of Kakadu National Park. Through joint management, they have worked hard with Park staff to balance the protection of their culture and the places that are important to them with the needs of Park visitors and other stakeholders.

The Kakadu National Park Board of Management and the Director of National Parks wrote this Management Plan. When writing this Plan, the Board and the Director worked together:

- to decide on those issues that are important in managing the Park
- to provide instructions on how those important issues should be dealt with
- to provide ways to make sure that the things they said will be done are done and to measure how well they are done.

The Plan will guide how Kakadu National Park is to be managed over the next seven years.

### **Kakadu National Park Board of Management**

## Acknowledgments

The Director of National Parks and the Kakadu National Park Board of Management are grateful to the many individuals and organisations that contributed to this Management Plan. In particular they acknowledge Bininj, Parks Australia staff, the Northern Land Council, and the Northern Territory and Australian government agencies that provided information and assistance or submitted comments that contributed to the development of this Management Plan.

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Jacob Nayinggul (incoming Chairperson 2005)

Jessie Alderson

Roy Anderson

Michael Bangalang

Jane Christophersen

Peter Cochrane

Bessie Coleman

Victor Cooper

Russell Cubillo (outgoing Deputy Chairperson 2005)

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Yvonne Margurulu

Mick Markham

Sandra McGregor

Rick Murray

Marilynne Paspaley

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Mr Willika (deceased)



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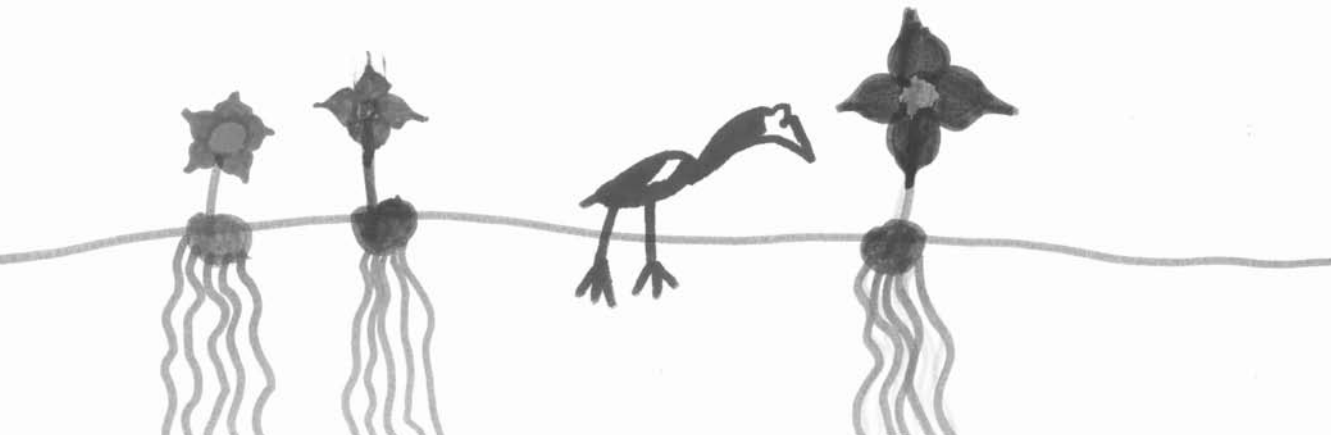
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# A description of Kakadu National Park



## Kakadu – a brief description

Kakadu National Park covers an area of 19 804 square kilometres within the Alligator Rivers Region of the Northern Territory of Australia. It extends from the coast in the north to the southern hills and basins 150 kilometres to the south, and 120 kilometres from the Arnhem Land sandstone plateau in the east through wooded savannas to the western boundary (see Figure 1).

Kakadu National Park is an Aboriginal living cultural landscape. A strong relationship exists between Bininj and their country, ongoing traditions, cultural practices, beliefs and knowledge. The living Aboriginal culture in Kakadu is diverse as there are many different clan groups with associations to country in Kakadu. Each clan group is responsible for looking after and speaking for particular areas of country in Kakadu, and this responsibility has been passed down from previous to present generations. The management and use of the land by past and present generations of Bininj has helped to shape the landscapes that we see in Kakadu today.

The Park is ecologically and biologically diverse. Major landforms and habitats within the Park include the sandstone plateau and escarpment, extensive areas of savanna woodlands and open forest, rivers, billabongs, floodplains, mangroves, mudflats, coastal areas and monsoon forests.

The value of the natural and cultural heritage of the Park to the world has been recognised by its inscription on the World Heritage List under the World Heritage Convention. The Park includes a large area that is listed as a wetland of international importance under the Ramsar Convention, and many species that occur in the Park are protected under international agreements such as the Bonn Convention for conserving migratory species and Australia's migratory bird protection agreements with China (CAMBA) and Japan (JAMBA).

The Alligator Rivers Region, which includes Kakadu, is on the Register of the National Estate under the *Australian Heritage Council Act 2003* because of its national significance to the Australian people. At the time of preparing this Plan Kakadu as a whole and some sites in the Park are also under consideration for inclusion in the National Heritage List or Commonwealth Heritage List under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

## Bininj cultural rules for the management of Kakadu National Park

### Creation

Every culture has a creation story. Aboriginal people believe that they have been here from the time of the first ancestors or *Nayuhyunggi* (in the Gundjeihmi language) when landscapes formed, human beings transformed themselves into animals and sacred places set themselves into the landscape.

Creation ancestors came in many forms. The Rainbow Snake (*Almudj/Alyod* in Gundjeihmi and *Bolung* in Jawoyn) is a spiritual being of great significance in Aboriginal culture in Kakadu. Other ancestral beings include *Bula* (in the Jawoyn language), *Namarrgon* (Lightning Man),

*Warramurrungudji* (Earth Mother) and others. The landscape and its features were left by the Creation Ancestors. They instituted and created ceremonies, rules to live by, laws, plants, animals and people, then they turned into *djang* (dreaming places and their spiritual essence). They taught Aboriginal people how to live with the land. From then on Aboriginal people became keepers of their country.

*'We Aboriginal people have obligations to care for our country, to look after djang, to communicate with our ancestors when on country and to teach all of this to the next generations.'*

### **Combined statement from the Aboriginal members of the Kakadu National Park Board of Management**

#### **Kinship**

Every aspect of life and responsibilities for looking after country is governed by kinship ties. Aboriginal languages have special linguistic features that eloquently express these ties and responsibilities.

Aboriginal society is organised into many kinds of social divisions. All people, plants, animals, places, weather, landscapes and ceremonies are divided into halves or moieties such as Duwa and Yirridjdja, Mardku and Ngarradjku.

Each moiety is subdivided into four pairs of subsections or 'skin groups'. A child's skin group is determined by that of their mother but they inherit their moiety from their father. Aboriginal people organise marriage relationships through the use of skin groups and use skin group names as important ways of addressing and referring to other Aboriginal people.

Members of a particular clan have a number of clan totems or emblems that are associated with the clan and its moiety. Such totems have their religious focus in special places or sacred sites in their clan estates. If the totem is a plant or animal that is relied upon as a food source, then members of the owning clan have responsibilities to ensure the plentiful supply of this food.

#### **Clan estates and traditional owners**

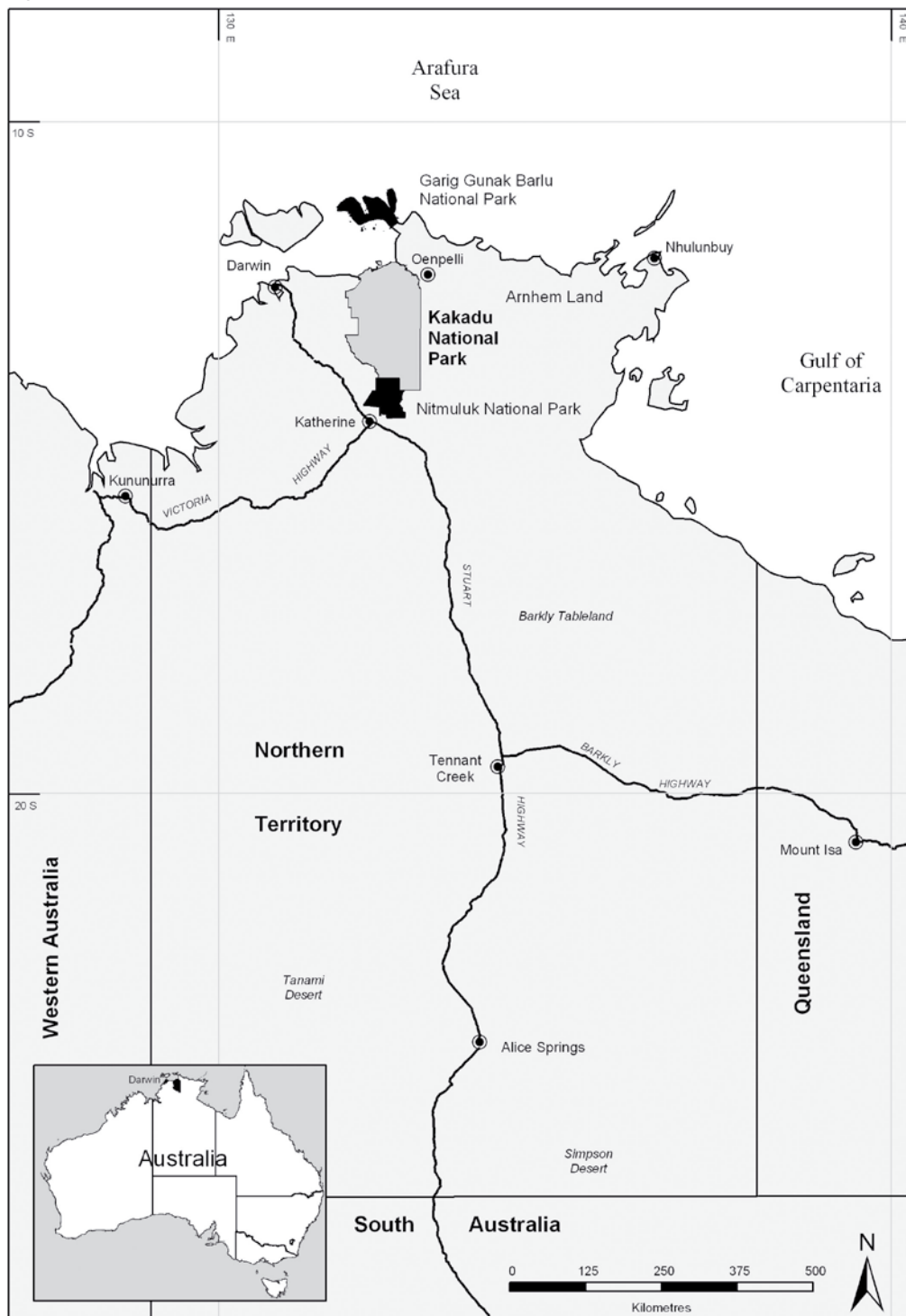
Kakadu includes the traditional lands of a number of Aboriginal clan groups.

*'Land and people go together. Every place has a clan name, and every place has a clan.'*

#### **Jacob Nayinggul, Manilagarr clan**

In English the term 'traditional owner' is commonly used to refer to someone who is a member of the clan associated with a particular clan estate (and has a particular meaning under the *Aboriginal Land Rights (Northern Territory) Act 1976*). Both men and women may be acknowledged as senior traditional owners. Traditional owners make important decisions about the management of a clan estate through patrilineal descent. Aboriginal people who are connected to a clan estate through their mother are also involved in decision-making. These people, who refer to a clan estate as their mother's country, have important management responsibilities, namely protecting sacred sites and assisting with the protection of religious objects associated with their mother's country.

Figure 1 – Location of Kakadu National Park





*'These laws need to be explained to non-Aboriginal people in the same way it is taught to children so we can all hold on to it and teach it to children who will grow up learning about their land with this law.'*

**Jacob Nayinggul, Manilagarr clan**

## **Making decisions about country**

Bininj who have cultural responsibilities for management of a clan estate are key people in the planning and management of the Park. Everyone who lives, works in or visits Kakadu must respect Bininj rules and it is important that these rules are passed on to young Bininj.

*'I had to learn it when I was growing up and I have to teach it to my family – my sisters and brothers have to learn it. Parks needs to learn it too.'*

**Senior Jawoyn Bolmo clan member**

*'Bininj/Mungguy try hard to learn Balanda law to make informed decisions. Balanda need to make an effort to learn Bininj/Mungguy law.'*

**Russell Cubillo, Jawoyn Bolmo affiliate**

*'Bininj laws must be followed, with Balanda law backing up Bininj law.'*

**Jonathon Nadji, Bunitj clan**

*'When I want to do something on country I have to ask the right person. To go and burn country or do weed control I have to ask the right person, traditional way, because there's many important sites there or whatever. This is our way.'*

**Bessie Coleman, Wurrkbarbar/Jawoyn clan**

## **Establishment of Kakadu National Park**

### **Background**

Kakadu was established at a time when the Australian community was becoming more interested in the declaration of national parks for conservation and in recognising the land interests of Aboriginal people. A national park in the Alligator Rivers Region was proposed as early as 1965. Over the next decade several proposals for a major national park in the region were put forward by interested groups and organisations. One of these proposals first suggested the name 'Kakadu', after the Gagudju people, for the national park. 'Kakadu' was the original spelling of the word as given by the biologist and anthropologist W Baldwin Spencer in 1912.

In 1973, the Australian Government set up a Commission of Inquiry into Aboriginal land rights in the Northern Territory. This commission specially considered how to recognise Aboriginal people's land interests while providing for conservation management of the land. The commissioner in charge of this inquiry, Mr Justice Woodward, concluded that: 'It may be that a scheme of Aboriginal title, combined with national park status and joint management would prove acceptable to all interests.' (Woodward 1973).

In the early 1970s, significant uranium deposits were discovered in the Alligator Rivers Region at Ranger, Jabiluka and Koongarra. A formal proposal to develop the Ranger deposit was submitted to the Australian Government in 1975 and the government established the Ranger Uranium Environmental Inquiry (the Ranger Inquiry, also known as the Fox Inquiry) to investigate the proposal, focusing on environmental issues and the social impact on Aboriginal people.

During the time the Ranger Inquiry was being held, the *Aboriginal Land Rights (Northern Territory) Act 1976* (Land Rights Act) was passed by the Commonwealth Parliament. The Land Rights Act allowed the Commission set up to conduct the Ranger Inquiry to determine the merits of a claim to traditional Aboriginal ownership of land in the Alligator Rivers Region.

The Ranger Inquiry tried to work out a compromise between the problems of conflicting and competing land uses, including Aboriginal people living on the land, establishing a national park, uranium mining, tourism and pastoral activities in the Alligator Rivers Region. In August 1977, the Australian Government responded to the recommendations of the Ranger Inquiry. It accepted almost all the recommendations including those about granting Aboriginal title to areas in the Alligator Rivers Region and establishing Kakadu in stages. An arrangement was made for the traditional owners to lease land granted to them to the Australian Government for management as a national park. Mining would not be permitted in the Park but was provided for on areas excluded from the Park.

## Establishment of the Park, and the Park as Aboriginal land

Kakadu National Park was declared under the *National Parks and Wildlife Conservation Act 1975* (NPWC Act) in three stages between 1979 and 1991. The NPWC Act was replaced by the EPBC Act in 2000. The declaration of the Park continues under the EPBC Act. Each stage of the Park includes Aboriginal land under the Land Rights Act that is leased to the Director of National Parks (the Director), or land that is subject to a claim to traditional ownership under the Land Rights Act (see Figure 3).

Most of the land that was to become part of Stage One of Kakadu was granted to the Kakadu Aboriginal Land Trust under the Land Rights Act in August 1978 and, in November 1978, the Land Trust and the Director signed a lease agreement for the land to be managed as a national park. Stage One of the Park—covering the leased land, and land required for the township of Jabiru and some adjoining areas—was declared on 5 April 1979.

Stage Two was declared on 28 February 1984. In March 1978 a claim was lodged under the Land Rights Act for the land included in Stage Two of Kakadu. The land claim was partly successful and, in 1986, three areas in the eastern part of Stage Two were granted to the Jabiluka Aboriginal Land Trust. A lease between the Land Trust and the Director of National Parks was signed in March 1991.

In June 1987, a land claim was lodged for the land in the former Goodparla and Gimbat pastoral leases that was to be included in Stage Three of Kakadu. The other areas to be included in Stage Three—the area known as the Gimbat Resumption and the Waterfall Creek Reserve (formerly known as UDP Falls, UDP standing for Uranium Development Project)—were later added to this land claim. Stage Three of Kakadu was declared progressively on 12 June 1987, 22 November 1989

and 24 June 1991. The progressive declaration was due to the debate over whether mining should be allowed at Guratba (Coronation Hill) which is located in the middle of the culturally significant area referred to as the Sickness Country. The traditional owners' wishes were ultimately respected and the Australian Government decided that there would be no mining at Guratba. In 1996, the land in Stage Three, apart from the former Goodparla pastoral lease, was granted to the Gunlom Aboriginal Land Trust and leased to the Director of National Parks to continue being managed as part of Kakadu.

## Joint management

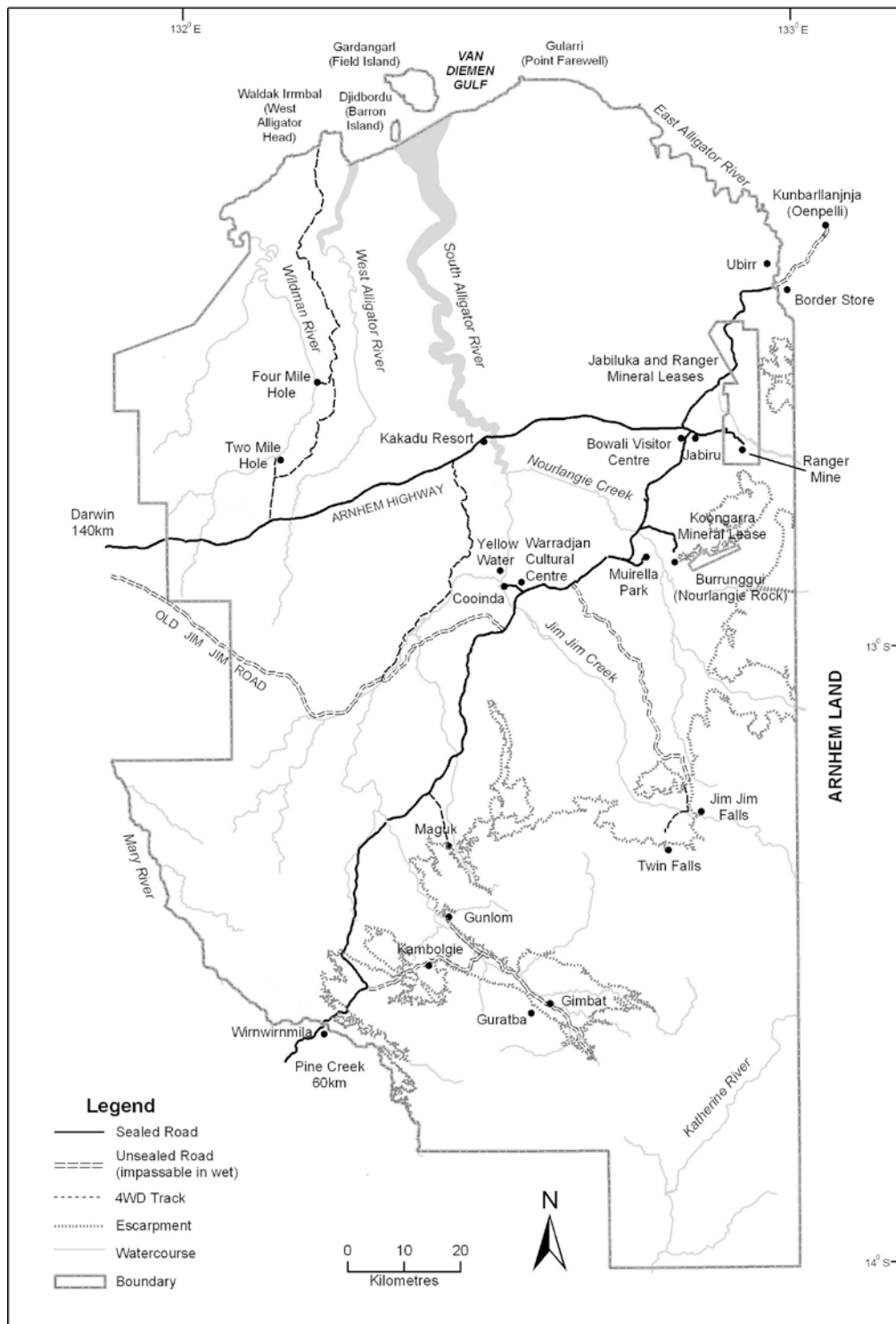
Joint management is about Bininj and Balanda working together, solving problems together, sharing decision-making responsibilities and exchanging knowledge, skills and information. Important objectives of joint management are to make sure that traditional skills and knowledge associated with looking after culture and country, and Bininj cultural rules regarding how decisions should be made, continue to be respected and maintained. It is also important that contemporary park management skills are available to enable the joint management partners to look after Kakadu in line with current best management practices.

Joint management in Kakadu combines a legal framework set in place by the NPWC Act (continued under the EPBC Act), the Land Rights Act, the lease agreements between Aboriginal Land Trusts and the Director, and the continuing day-to-day relationship between Bininj, the Board of Management and Park staff.

The Land Rights Act provides for the granting of land to Aboriginal Land Trusts for the benefit of the traditional Aboriginal owners and requires land granted in the Alligator Rivers Region to be leased to the Director of National Parks. The EPBC Act provides for the Park to be managed by the Director in conjunction with the traditional owners through a Board of Management that has a majority of members who are nominated by Bininj. The role of the Board is to prepare management plans with the Director, make decisions to implement those plans (including allocation of resources and setting priorities), monitor management of the Park and provide advice to the responsible Minister (currently the Minister for the Environment and Water Resources). The EPBC Act requires the composition of the Board to be agreed between the Minister (who appoints Board members) and the Northern Land Council. At the time of preparing this Management Plan the Board has 15 members, 10 of whom are nominated by the traditional owners of land in the Park.

Bininj representation on the Board covers the geographic spread of Aboriginal people within the Kakadu region as well as the major language groupings. At the time of writing, the Balanda members of the Board are the Director of National Parks; the Assistant Secretary of Parks Australia North; a person prominent in nature conservation; a person employed in the tourism industry in the Northern Territory; and a Northern Territory Government nominee. The Board has determined that the Chairperson be appointed from the Aboriginal members of the Board.

Figure 2 – Kakadu National Park



## Local, regional, national and international significance

As well as being important to Bininj, Kakadu is a special and important place to many other people.

### How Kakadu is significant locally

To Bininj, Kakadu is of particular importance as it is their home and they have important cultural obligations to look after country. Many Bininj consider that they cannot or should not move to other places to live or work. The Park is their traditional homeland and it is important to them that they are able to look after their country and culture and make sure that visitors to their country are safe. Many other people also enjoy the benefits that come from living in the Park. For many residents in Jabiru and the Kakadu region Kakadu is not only a place to live and work, it is also a place for recreation and a place where they can appreciate and learn about the Park's natural and cultural heritage.

### How Kakadu is significant regionally

**Conservation:** The Park is both representative and unique. It is representative of the ecosystems of a vast area of northern Australia. It is unique because it incorporates one drainage basin (the South Alligator River) and all of the major habitat types of the Top End. It is where the Arnhem Land plateau meets the Alligator Rivers floodplains and the southern hills and basins (see Figure 4, Landforms of Kakadu).

A number of plant and animal species that occur in Kakadu do not occur in any other national park. Kakadu is important as a wildlife conservation area for the region because it is a large area managed as a national park, whereas other areas of Top End habitats are managed primarily for other purposes such as agriculture, pastoralism, mining, rural development or defence force use, or are not being actively managed for habitat conservation.

It is essential for regional conservation that traditional owners of Kakadu, Nitmiluk, Gurig, Arnhem Land and other areas in the region, Park staff and external specialists share their knowledge of country and, where needed, carry out cooperative land management and conservation programs. This requires cooperative arrangements between Parks Australia, Northern Territory Government agencies, Aboriginal organisations and other organisations. Regional conservation initiatives are therefore a key component of this Management Plan.

**Regional economy:** Tourism is very important to the regional economy, particularly in terms of employment. For the financial year 2004–05 the Northern Territory Tourist Commission reported that the direct value of tourism to the Territory was \$1.5 billion, generated from over 1.4 million visitors. Of all visitors to the Northern Territory 82 per cent visited for pleasure and most reported that they visited to take advantage of attractions such as those provided by Kakadu. In 2004–05 Kakadu National Park attracted 165 300 visitors and directly contributed an estimated \$58.1 million to the Northern Territory economy (Tremblay 2005). In addition to its significant contribution via the tourism market, the Park purchases significant quantities of goods and services from regional suppliers. Further analyses of the economic significance of the Park are being developed, including the economic value of the environmental services that the Park provides.

It is important to the Northern Territory Government that tourism development in the Park complements its tourism marketing strategies and plans for regional tourism development.

**Recreation:** Many people from Darwin, Katherine and Pine Creek use the Park for recreation. They undertake many recreational activities in the Park with fishing, camping, bushwalking and visiting with relatives and friends being some of the most popular activities. Kakadu offers recreational opportunities that complement those offered in the other parks, reserves and attractions in the region, such as the proposed Mary River National Park, Nitmiluk, Litchfield and Gurig national parks, Fogg Dam, Window on the Wetlands and the Territory Wildlife Park.

## How Kakadu is significant nationally

**Conservation:** Nearly 1600 plant species have been recorded in Kakadu, including about 17 species considered rare or threatened. Kakadu contains 271 bird species, which is over one third of Australia's bird fauna, and 77 mammal species, about one quarter of Australia's land mammals; 132 reptile species and 27 frog species occur within Kakadu and over 246 fish species have been recorded in tidal and freshwater areas within the Park. The region is the most species-rich in freshwater fish in Australia. Unlike many other areas of Australia, Kakadu still has nearly all the plant and animal species that are thought to have been present in the area 200 years ago. Additional species new to western science have also been discovered in the Park since its inscription on the World Heritage list, including the freshwater tongue sole, the giant cave gecko and an undescribed species of Acacia.

In 1980, the significance of the Alligator Rivers Region to the nation was recognised by its entry on the Register of the National Estate under the *Australian Heritage Commission Act 1975* because of its natural and cultural heritage. In 1986, 575 hectares at Jarrangbarnmi (Koolpin Gorge) was placed on the register because the endemic species *Eucalyptus koolpinensis* is found there. The southern third of the Park was placed on the register in 1989. The EPBC Act has replaced the *Australian Heritage Commission Act 1975* with new heritage protection provisions but the Register of the National Estate continues under the *Australian Heritage Council Act 2003*. The EPBC Act requires the Minister for the Environment and Water Resources to have regard to information in the Register of the National Estate when making decisions under the Act.

At the time of preparing this Plan, Kakadu and some sites in the Park that are on the Register of the National Estate are 'indicative places' for the purposes of potential inclusion in either the National Heritage List or Commonwealth Heritage List under the EPBC Act.

The national park status and effective conservation management of Kakadu contribute significantly towards meeting the objectives of a number of Australian national conservation strategies. These include the following:

- National Strategy for the Conservation of Australia's Biological Diversity and the National Strategy for Ecologically Sustainable Development. Kakadu is Australia's largest national park, contributing to the objectives in these strategies of having a comprehensive, adequate and representative system of protected areas. The management measures carried out in Kakadu contribute strongly to the objectives of the National Strategy for the Conservation of Australia's Biological Diversity by conserving biological diversity in situ, integrating biological

diversity conservation and natural resource management, managing threatening processes, improving knowledge of biological diversity and involving the community in biodiversity conservation.

- National Forest Policy Statement. Substantial areas of a number of types of tropical forest, as well as large tracts of savanna woodland, are conserved in Kakadu, contributing to the objective of having a comprehensive, adequate and representative network of dedicated and secure nature conservation reserves for forest ecosystems.
- National Reserve System. The National Reserve System represents the collective efforts of the states, territories, the Australian Government, non-government organisations and Indigenous landholders to achieve a national system of terrestrial protected areas as a major contribution to the conservation of Australia's native biodiversity.

Kakadu makes a significant contribution to the National Reserve System, which aims to contain samples of all regional ecosystems across Australia, their constituent biota and associated conservation values, in accordance with the Interim Biogeographic Regionalisation for Australia. Kakadu spans two biogeographic regions—Arnhem Plateau and Pine Creek. The Arnhem Plateau biogeographic region encompasses the Northern Territory's most important area for biodiversity with very high levels of endemism and extraordinary richness of many groups of flora and fauna. About 20 per cent is within reserves, Kakadu accounting for most of this. The Pine Creek biogeographic region is the most extensively reserved of the Territory bioregions, with 43 per cent in reserves, mostly in Kakadu. These are amongst the highest levels of protection in the country (Department of Natural Resources, Environment and the Arts 2005).

- Wetlands Policy of the Commonwealth Government of Australia. Kakadu conserves almost all the catchment of the South Alligator River as well as large areas of wetlands, contributing to all objectives of the Wetlands Policy, particularly the objective of managing wetlands in an ecologically sustainable way and within a framework of integrated catchment management. A guiding principle of the Wetlands Policy is recognition of the importance of the knowledge and practices of Indigenous people in relation to wetlands and promotion of a cooperative approach to wetland management and conservation with Indigenous Australians. The joint management arrangements in Kakadu are consistent with this guiding principle.

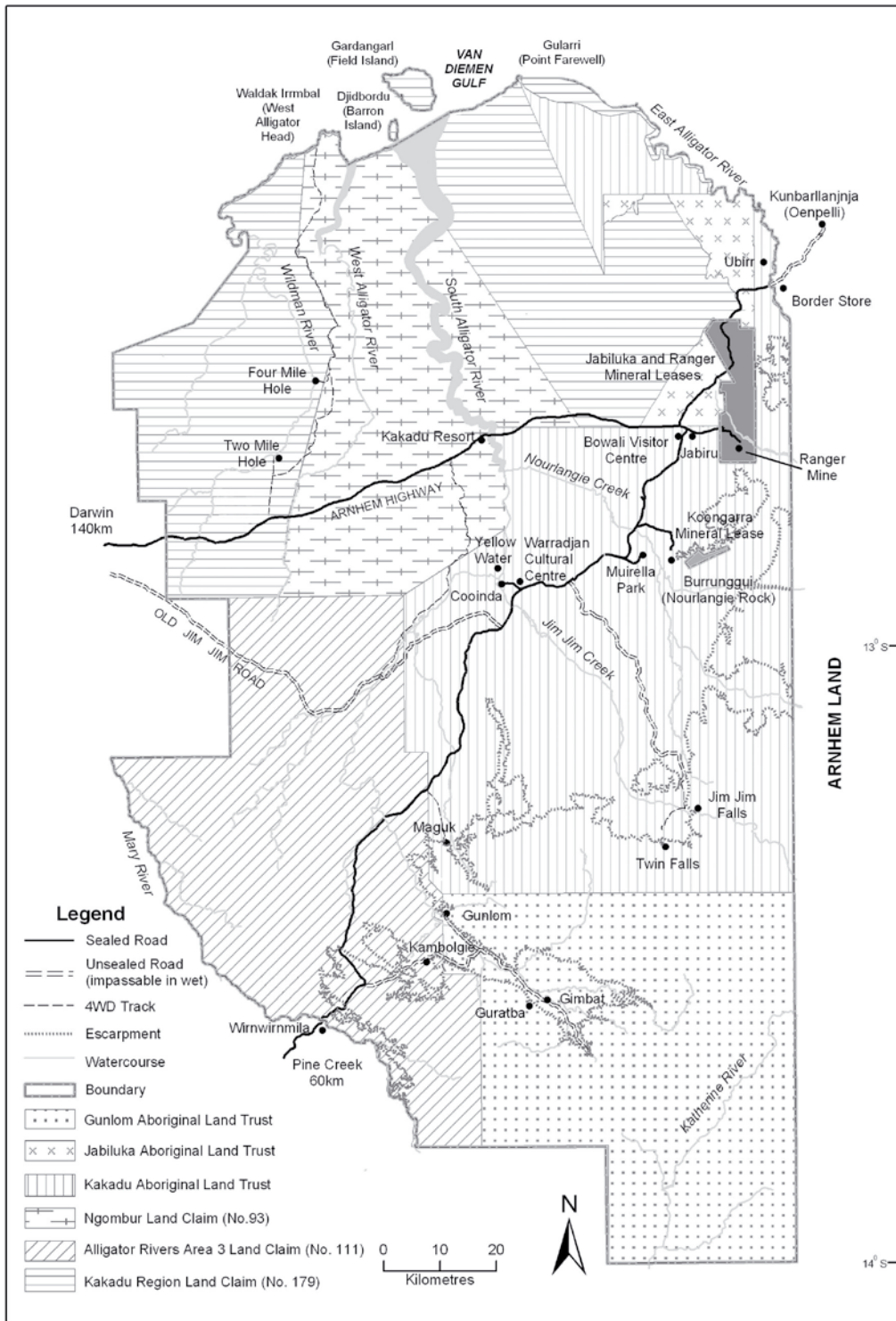
**National economy:** Tourism is the fastest growing export industry in Australia and is actively promoted by governments at all levels. Along with other places of natural beauty in Australia such as Uluru–Kata Tjuta National Park and the Great Barrier Reef, Kakadu has become a major tourism attraction for overseas visitors.

**Joint management:** The management arrangements in the Park between Bininj and Parks Australia continue to be cited as an example of an innovative and effective cooperative management arrangement. The joint management of Kakadu has attracted international praise for Australia, the Australian Government and the joint management partners.

Protected area and land management authorities and groups of Indigenous people interested in joint management from within Australia and overseas regularly visit the Park.



Figure 3 – Aboriginal land and land claims in Kakadu National Park





## How Kakadu is significant internationally

Kakadu is inscribed on the World Heritage List under the World Heritage Convention for its outstanding natural and cultural values. Stage One of the Park was inscribed on the list in 1981 and Stage Two in 1987. The whole of the Park was listed in December 1992. At the time of preparing this Plan, Kakadu is one of only 23 World Heritage sites listed for both its natural and cultural heritage. Appendix B to this Plan summarises the World Heritage attributes of Kakadu and the criteria under which it was listed.

Large areas of Kakadu are listed as wetlands of international importance under the Ramsar Convention. Stage One was included on the list in 1980. Wetlands in Stage Two were included in September 1987. In 1996, wetlands in Stage Three that are part of the South Alligator River catchment were added to the list. Some 683 000 hectares of Kakadu are included in the Ramsar list. Appendix F to this Plan contains the Ramsar information sheet for the Park.

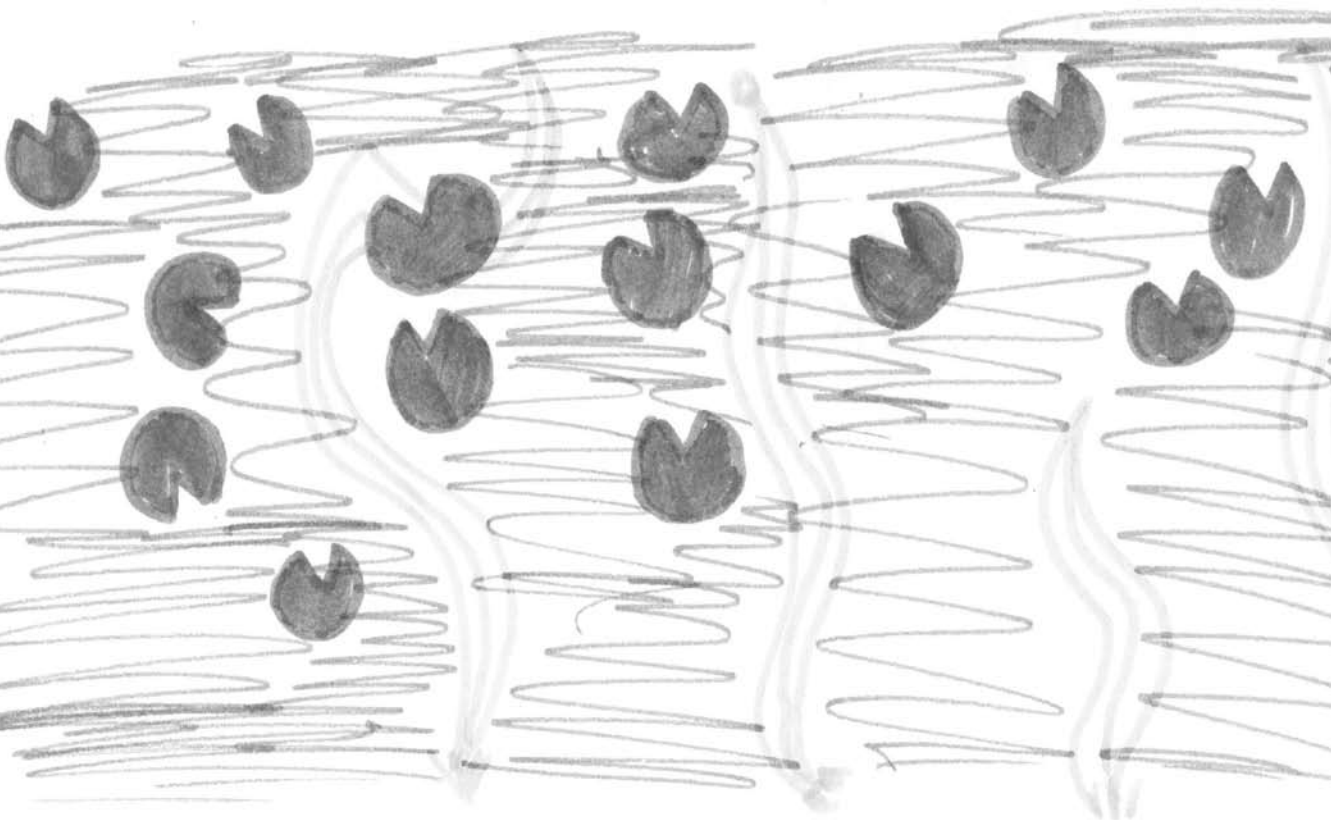
In March 1996, the parties to the Ramsar Convention agreed to establish an East Asian–Australasian Flyway to protect areas used by migratory shorebirds. The flyway provides for an East Asian–Australasian shorebird reserve network of sites that are critically important to migratory shorebirds. The wetlands of Kakadu National Park are part of this reserve network.

Numerous migratory species that occur in Kakadu are protected under international agreements such as the Bonn Convention for conserving migratory species, and Australia’s migratory bird protection agreements with China (CAMBA) and Japan (JAMBA). Thirty-nine of the species listed under the Bonn Convention are found in Kakadu, as are 52 of the 81 bird species listed under CAMBA and 49 of the 110 bird species listed under JAMBA. Appendix E to this Plan lists the migratory species that occur in the Park.

Kakadu is part of a Tri-National Wetlands Conservation Project which operates under an agreement between the Director of National Parks and the management authorities of Wasur National Park in Irian Jaya and Tonda Wildlife Management Area in Papua New Guinea. The project aims to develop a cooperative arrangement between the three areas to share experiences in wetland conservation, promote best management options and develop local management capacity. Wetlands in the three protected areas each form a significant stopover point for birds on the East Asian–Australasian Flyway.



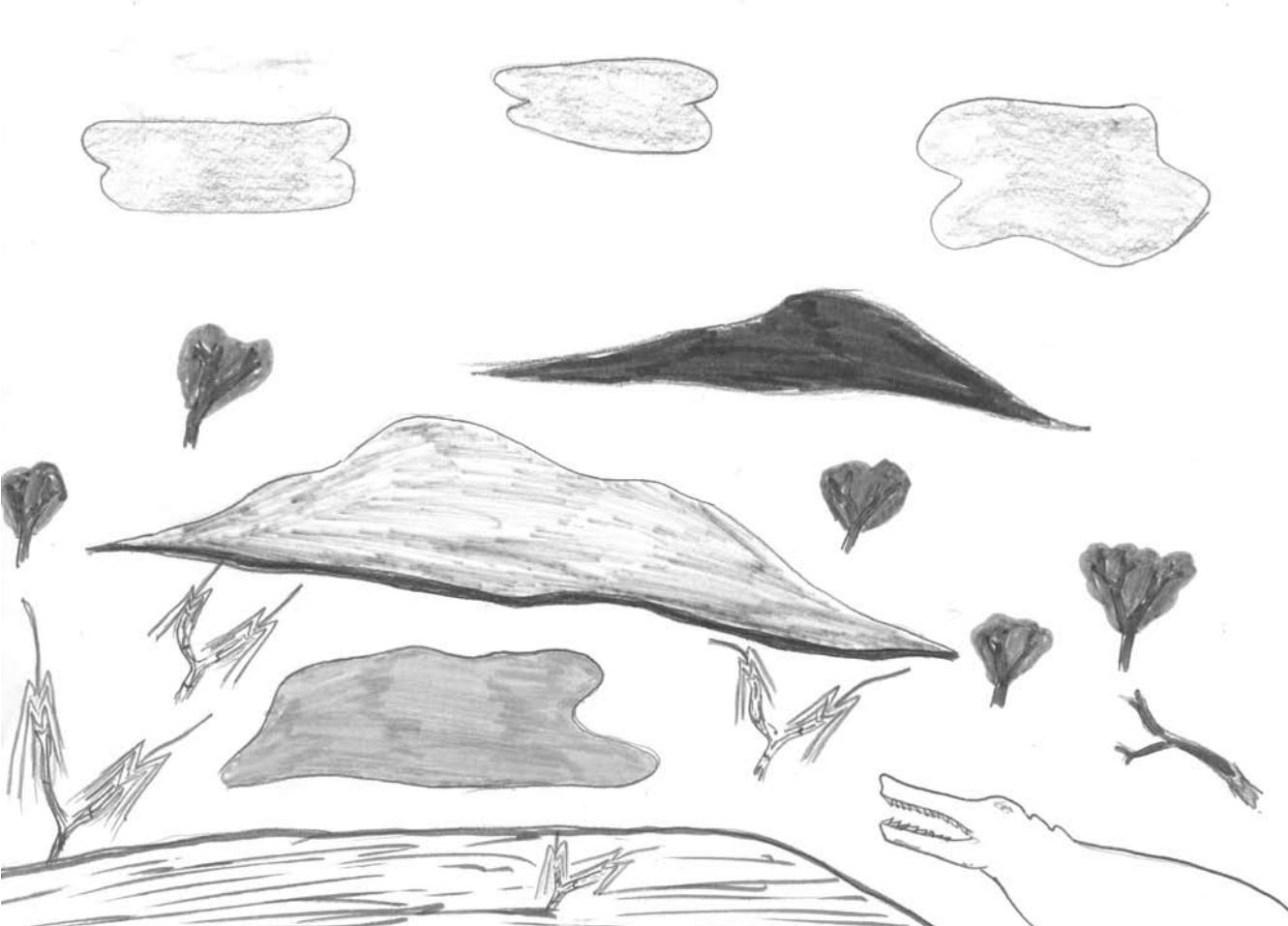
# Management Plan for Kakadu National Park





# Part 1

## Introduction



# 1. Background

Part 1 of the Plan sets out the context in which this 5th Plan was prepared. It describes previous Plans and the network of legislative requirements, lease agreements and international agreements which underpin the content of the Plan.

## 1.1 Previous Management Plans

This is the 5th Management Plan for Kakadu National Park. The 4th Plan came into operation on 11 March 1999 and ceased to have effect on 8 March 2004.

## 1.2 Structure of this Management Plan

The structure of this Plan reflects the Parks Australia Strategic Planning and Performance Assessment Framework, a set of priorities based on Australian Government policy and legislative requirements for the protected area estate that is the responsibility of the Director of National Parks.

The outcomes in the Plan are developed against the following key result areas (KRAs) set out in the Strategic Planning and Performance Assessment Framework:

KRA 1: Natural heritage management (see Section 5 of the Plan)

KRA 2: Cultural heritage management (see Section 5)

KRA 3: Joint management (see Section 4)

KRA 4: Visitor management and park use (see Section 6)

KRA 5: Stakeholders and partnerships (see Section 7)

KRA 6: Business management (see Section 8).

Not all KRAs apply to all reserves; KRA 7, Biodiversity knowledge management, does not apply to Kakadu. Appendix C details outcomes for the KRAs, which are also used to structure the State of the Parks report in the Director of National Parks' Annual Report to the Australian Parliament.

## 1.3 Planning process

Section 368 of the EPBC Act requires that the Director of National Parks and the Board of Management (if any) for a Commonwealth reserve prepare management plans for the reserve. In addition to seeking comments from members of the public, the relevant Land Council and the relevant state or territory government, the Director and the Board are required to take into account the interests of the traditional owners of land in the reserve and of any other Indigenous persons interested in the reserve.

The Board resolved that consultations be undertaken with Bininj on a clan-by-clan basis to seek comments on issues related to the management of the Park. During the drafting stage of this Plan, Park staff conducted extensive consultations with over 100 Bininj during 33 participatory planning meetings. These meetings covered a range of Park management issues including

decision-making procedures; natural and cultural resource management; visitor management and Park use, and Bininj employment. A number of Board meetings were also conducted to enable the Board to consider the draft Management Plan and submissions received from members of the public.

Other stakeholder groups and individuals that were consulted during the preparation of this Management Plan include:

- tourism industry representatives, scientists, fishing and photography interest groups, representatives from Australian Government and Northern Territory Government agencies, and local community organisations
- the Northern Land Council
- Parks Australia staff.

## 2. Introductory provisions

### 2.1 Short title

This Management Plan may be cited as the Kakadu Management Plan or the Kakadu National Park Management Plan.

### 2.2 Commencement and termination

This Management Plan will come into operation following approval by the Minister under s.370 of the EPBC Act, on a date specified by the Minister or the date it is registered under the Legislative Instruments Act 2003, and will cease to have effect seven years after commencement, unless revoked sooner or replaced with a new Plan.

### 2.3 Interpretation (including acronyms)

In this Management Plan:

**Aboriginal** means a person who is a member of the Aboriginal race of Australia

**Aboriginal land** means

- (a) land held by an Aboriginal Land Trust for an estate in fee simple under the Land Rights Act; or
- (b) land that is the subject of a deed of grant held in escrow by an Aboriginal Land Council under the Land Rights Act

**Aboriginal tradition** means the body of traditions, observances, customs and beliefs of Aboriginals generally or of a particular group of Aboriginals and includes those traditions, observances, customs and beliefs as applied in relation to particular persons, sites, areas of Kakadu National Park, things and relationships

**AFANT** means the Amateur Fishermen's Association of the Northern Territory

**Australian Government** means the Government of the Commonwealth of Australia

**Balanda** means non-Aboriginal people

**BFC** means the Bushfires Council established by the *Bushfires Act* (NT)

**Bininj** means **traditional owners** of **Aboriginal land** and **traditional owners** of other land in the 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 (including Relevant Aboriginals as defined in the lease agreements for the Park)

*Bininj* is a Kunwinjku and Gundjeihmi word, pronounced ‘binn-ing’. This word is similar to the English word ‘man’ and can mean man, male, person or Aboriginal people, depending on the context. Other languages in Kakadu National Park have other words with these meanings, for example the Jawoyn word is *Munggy* and the Limilngan word is *Murlugan*. In this plan, the word *Bininj* is used to refer to Aboriginal people who have rights and interests in relation to Kakadu National Park

**Board of Management** or **Board** means the Board of Management for Kakadu National Park established under the NPWC Act and continued under the EPBC Act by the *Environmental Reform (Consequential Provisions) Act 1999*

**CAMBA** means the 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

**CITES** means the Convention on International Trade in Endangered Species of Wild Fauna and Flora

**Commonwealth reserve** means a reserve established under Division 4 of Part 15 of the EPBC Act

**Director** means the Director of National Parks under s.514A of the EPBC Act, and includes Parks Australia and any person to whom the Director has delegated powers and functions under the EPBC Act in relation to Kakadu National Park

**EPBC Act** means the *Environment Protection and Biodiversity Conservation Act 1999*, including Regulations under the Act, and includes reference to any Act amending, repealing or replacing the EPBC Act

**EPBC Regulations** means the Environment Protection and Biodiversity Conservation Regulations 2000 and includes reference to any Regulations amending, repealing or replacing the EPBC Regulations

**ERA** means Energy Resources Australia

**eriss** means the Environmental Research Institute of the Supervising Scientist

**EPARR Act** means the *Environment Protection (Alligator Rivers Region) Act 1978*

**FNA** means the Fly Neighbourly Advice, also known as a Fly Neighbourly Agreement or Policy

**Fox Inquiry** means the Ranger Uranium Environmental Inquiry, also known as the Ranger Inquiry

**Gazette** means the *Commonwealth of Australia Gazette*

**GIS** means geographic information system



**ICOMOS** means the International Council on Monuments and Sites

**IUCN** means the World Conservation Union

**JAMBA** means the Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment

**JTC** means the Jabiru Town Council

**JTDA** means the Jabiru Town Development Authority, or its successor

**Kakadu National Park, Kakadu or the Park** means the area declared as a Park by that name under the NPWC Act and continued as a Commonwealth reserve under the EPBC Act by the *Environmental Reform (Consequential Provisions) Act 1999*

**KRA** means key result area. The seven KRAs developed by the Director of National Parks are set out in the Parks Australia Strategic Planning and Performance Assessment Framework

**KRAC** means the Kakadu Research Advisory Committee

**KTCC** means the Kakadu Tourism Consultative Committee

**Land Rights Act** means the *Aboriginal Land Rights (Northern Territory) Act 1976*

**Lease agreements** means lease agreements between Aboriginal Land Trusts and the Director in respect of Aboriginal land in the Park

**Management Plan or Plan** means this Management Plan for the Park, unless otherwise stated

**Management principles** means the Australian IUCN reserve management principles set out in Schedule 8 of the EPBC Regulations (see Appendix G)

**Mining operations** means mining operations as defined by the EPBC Act

**Minister** means the Minister administering the EPBC Act

**NLC** means the Northern Land Council

**NPWC Act** means the *National Parks and Wildlife Conservation Act 1975* and the Regulations under that Act

**NT** means the Northern Territory of Australia

**NTFRS** means the Northern Territory Fire and Rescue Service

**OHS** means occupational health and safety

**OSS** means the Office of the Supervising Scientist

**Parks Australia** means that part of the Department of the Environment and Water Resources that assists the Director in performing the Director's functions under the EPBC Act

**Prescription** means a policy or action in this Plan

**Ranger Inquiry** means the Ranger Uranium Environmental Inquiry, also known as the Fox Inquiry

**Sacred Sites Act** means the *Northern Territory Aboriginal Sacred Sites Act*

**Traditional owners** means the traditional Aboriginal owners as defined in the Land Rights Act

**World Heritage Convention** means the Convention for the Protection of the World Cultural and Natural Heritage.

## 2.4 Legislative context

### 2.4.1 Land Rights Act and Park leases

At the time of preparation of this Management Plan approximately 50 per cent of Kakadu National Park is Aboriginal land under the Land Rights Act. Most of the remaining area of land is under claim by Aboriginal people. Title to Aboriginal land in the Park is held by Aboriginal Land Trusts. The Land Trusts have leased their land to the Director in accordance with the Land Rights Act for the purpose of being managed as a Commonwealth reserve. Land in the Park that is not Aboriginal land is vested in the Director.

### 2.4.2 EPBC Act

#### Objects of the Act

The objects of the EPBC Act as set out in Part 1 are:

- (a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance; and
- (b) to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources; and
- (c) to promote the conservation of biodiversity; and
- (ca) to provide for the protection and conservation of heritage; and
- (d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples; and
- (e) to assist in the co-operative implementation of Australia's international environmental responsibilities; and
- (f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
- (g) to promote the use of indigenous people's knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.

#### Establishment of the Park

The Park was declared under the NPWC Act progressively between 1979 and 1991. Stage One of the Park was established in 1979, Stage Two in 1984, and Stage Three between 1987 and 1991. The NPWC Act was replaced by the EPBC Act in July 2000. The Park continues as a Commonwealth reserve under the EPBC Act pursuant to the *Environmental Reform (Consequential Provisions) Act*

1999, which deems the Park to have been declared for the following purposes:

- the preservation of the area in its natural condition
- the encouragement and regulation of the appropriate use, appreciation and enjoyment of the area by the public.

### **Director of National Parks**

The Director is a corporation under the EPBC Act (s.514A) and a Commonwealth authority for the purposes of the *Commonwealth Authorities and Companies Act 1997*. The corporation is controlled by the person appointed by the Governor-General to the office that is also called the Director of National Parks (s.514F of the EPBC Act).

The functions of the Director (s.514B) include the administration, management and control of the Park. The Director generally has power to do all things necessary or convenient for performing the Director's functions (s.514C). The Director has a number of specified powers under the EPBC Act and EPBC Regulations, including to prohibit or control some activities, and to issue permits for activities that are otherwise prohibited. The Director performs functions and exercises powers in accordance with this Management Plan and relevant decisions of the Board of Management.

### **Kakadu National Park Board of Management**

The Board of Management was established under the NPWC Act in 1989 and continues under the EPBC Act. A majority of Board members must be Indigenous persons nominated by the traditional Aboriginal owners of land in the Park. The functions of the Board under s.376 of the EPBC Act are:

- to make decisions relating to the management of the Park that are consistent with the Management Plan in operation for the Park; and
- in conjunction with the Director, to:
  - prepare management plans for the Park; and
  - monitor the management of the Park; and
  - advise the Minister on all aspects of the future development of the Park.

### **Management plans**

The EPBC Act requires the Board, in conjunction with the Director, to prepare management plans for the Park. When prepared, a plan is given to the Minister for approval. A management plan is a 'legislative instrument' for the purposes of the Legislative Instruments Act 2003 and must be registered under that Act. Following registration the plan is tabled in each House of the Commonwealth Parliament and may be disallowed by either House on a motion moved within 15 sitting days of the House after tabling.

A management plan for a Commonwealth reserve has effect for seven years, subject to being revoked or amended earlier by another management plan for the reserve.

See Section 2.5 of this Plan in relation to EPBC Act requirements for a management plan.

### Control of actions in Commonwealth reserves

The EPBC Act (s.354) prohibits certain actions being taken in Commonwealth reserves except in accordance with a management plan. These actions are:

- kill, injure, take, trade, keep or move a member of a native species; or
- damage heritage; or
- carry on an excavation; or
- erect a building or other structure; or
- carry out works; or
- take an action for commercial purposes.

These prohibitions, and other provisions of the EPBC Act and Regulations dealing with activities in Commonwealth reserves, do not prevent Aboriginal people from continuing their traditional use of Kakadu for hunting or gathering (except for purposes of sale) or for ceremonial and religious purposes (s.359A).

The EPBC Act also does not affect the operation of s.211 of the *Native Title Act 1993*, which provides that holders of native title rights covering certain activities do not need authorisation required by other laws to engage in those activities (s.8 EPBC Act).

Mining operations are prohibited in Kakadu National Park by the EPBC Act (s.387).

The EPBC Regulations control, or allow the Director to control, a range of activities in Commonwealth reserves, such as camping, use of vehicles and vessels, littering, commercial activities, commercial fishing, recreational fishing and research. The Director of National Parks applies the Regulations subject to and in accordance with the EPBC Act and management plans. The Regulations do not apply to the Director of National Parks or to wardens or rangers appointed under the EPBC Act. Activities that are prohibited or restricted by the EPBC Regulations may be carried on if they are authorised by a permit issued by the Director and/or they are carried on in accordance with a management plan or if another exception prescribed by r.12.06(1) of the Regulations applies.

As noted earlier, the Park was declared under the NPWC Act, which was replaced by the EPBC Act on 16 July 2000. The EPBC Act also replaced a number of other Commonwealth Acts, namely the:

*Australian Heritage Commission Act 1975*

*Endangered Species Protection Act 1992*

*Environment Protection (Impact of Proposals) Act 1974*

*Whale Protection Act 1980*

*Wildlife Protection (Regulation of Exports and Imports) Act 1982*

*World Heritage Properties Conservation Act 1983.*

These other parts of the EPBC Act may also be relevant to the management of the Park and the

taking of actions in, and in relation to, the Park.

### **Environmental impact assessment**

Actions that are likely to have a significant impact on matters of 'national environmental significance' are subject to the referral, assessment and approval provisions of Chapters 2 to 4 of the EPBC Act (irrespective of where the action is taken).

At the time of preparing this Plan, the matters of national environmental significance identified in the EPBC Act are:

- World Heritage listed properties
- National Heritage listed places
- Ramsar wetlands of international importance
- nationally listed threatened species and ecological communities
- listed migratory species
- Commonwealth marine areas
- nuclear actions (including uranium mining).

The referral, assessment and approval provisions also apply to actions on Commonwealth land that are likely to have a significant impact on the environment and to actions taken outside Commonwealth land that are likely to have a significant impact on the environment on Commonwealth land. The Park is Commonwealth land for the purposes of the EPBC Act.

Responsibility for compliance with the referral, assessment and approval provisions of the EPBC Act lies with persons taking relevant 'controlled' actions. A person proposing to take an action that the person thinks may be or is a controlled action should refer the proposal to the Minister for the Minister's decision whether or not the action is a controlled action. The Director of National Parks may also refer proposed actions to the Minister.

### **Wildlife protection**

The EPBC Act also contains provisions (Part 13) that prohibit and regulate actions in relation to listed threatened species and ecological communities, listed migratory species, cetaceans (whales and dolphins) and listed marine species. Appendix D to this Plan lists species in the Park that are threatened under the EPBC Act and Northern Territory legislation, and Appendix E lists migratory species that are listed under the EPBC Act and international conventions, treaties and agreements.

### **Heritage protection**

As noted above the EPBC Act has replaced the Australian Heritage Commission Act 1975. The Alligator Rivers Region, Kakadu and some places within the Park were included in the Register of the National Estate established under that Act. The register continues under the Australian Heritage Council Act 2003. Section 391A of the EPBC Act requires the Minister to have regard to information in the Register of the National Estate in making any decisions under the EPBC Act to

which the information is relevant.

At the time of preparing this Plan, Kakadu and some sites in the Park that are in the Register of the National Estate are 'indicative places' for the purposes of potential inclusion in either the National Heritage List or Commonwealth Heritage List under the EPBC Act.

The EPBC Act heritage protection provisions (ss. 324A to 324ZC and ss. 341A to 341ZH) relevantly provide:

- for establishment and maintenance of a National Heritage List and a Commonwealth Heritage List, criteria and values for inclusion of places in either list and management principles for places that are included in the two lists
- that Commonwealth agencies must not take an action that is likely to have an adverse impact on the heritage values of a place included in either list unless there is no feasible and prudent alternative to taking the action, and all measures that can reasonably be taken to mitigate the impact of the action on those values are taken
- that Commonwealth agencies that own or control places must:
  - prepare a written heritage strategy for managing those places to protect and conserve their Commonwealth Heritage values, addressing any matters required by the EPBC Regulations. The strategy must not be inconsistent with the Commonwealth Heritage management principles
  - identify Commonwealth Heritage values for each place, and produce a register that sets out the Commonwealth Heritage values (if any) for each place (and do so within the timeframe set out in its heritage strategy).

## Penalties

Civil and criminal penalties may be imposed for breaches of the EPBC Act.

## 2.5 Purpose, content and matters to be taken into account in a management plan

The purpose of this Management Plan is to describe the philosophy and direction of management for the Park for the next seven years in accordance with the EPBC Act. The Plan enables management to proceed in an orderly way; it helps reconcile competing interests and identifies priorities for the allocation of available resources.

Under s.367(1) of the EPBC Act, a management plan for a Commonwealth reserve (in this case, the Park) must provide for the protection and conservation of the reserve. In particular, the Plan must:

- (a) assign the reserve to an IUCN protected area category (whether or not a proclamation has assigned the reserve or a zone of the reserve to that IUCN category); and
- (b) state how the reserve, or each zone of the reserve, is to be managed; and
- (c) state how the natural features of the reserve, or of each zone of the reserve, are to be protected and conserved; and

- (d) if the Director holds land or seabed included in the reserve under lease—be consistent with the Director’s obligations under the lease; and
- (e) specify any limitation or prohibition on the exercise of a power, or performance of a function, under the EPBC Act in or in relation to the reserve; and
- (f) specify any mining operation, major excavation or other works that may be carried on in the reserve, and the conditions under which it may be carried on; and
- (g) specify any other operation or activity that may be carried on in the reserve; and
- (h) indicate generally the activities that are to be prohibited or regulated in the reserve, and the means of prohibiting or regulating them; and
- (i) indicate how the Plan takes account of Australia’s obligations under each agreement with one or more other countries that is relevant to the reserve (including the World Heritage Convention and the Ramsar Convention, if appropriate); and
- (j) if the reserve includes a National Heritage place:
  - (i) not be inconsistent with the National Heritage management principles; and
  - (ii) address the matters prescribed by Regulations made for the purposes of paragraph 324S(4)(a); and
- (k) if the reserve includes a Commonwealth Heritage place:
  - (i) not be inconsistent with the Commonwealth Heritage management principles; and
  - (ii) address the matters prescribed by Regulations made for the purposes of paragraph 341S(4)(a).

In preparing a management plan the EPBC Act (s.368) also requires account to be taken of various matters. In respect to Kakadu National Park these matters include:

- the regulation of the use of the Park for the purpose for which it was declared
- the interests of:
  - the traditional owners of the Park
  - any other Indigenous persons interested in the Park
  - any person who has a usage right relating to land, sea or seabed in the Park that existed (or is derived from a usage right that existed) immediately before the Park was declared
- the protection of the special features of the Park, including objects and sites of biological, historical, palaeontological, archaeological, geological and geographical interest
- the protection, conservation and management of biodiversity and heritage within the Park
- the protection of the Park against damage
- Australia’s obligations under agreements between Australia and one or more other countries relevant to the protection and conservation of biodiversity and heritage.

## 2.6 IUCN category and zoning

A management plan must assign a Commonwealth reserve to one of the following IUCN protected area categories:

- strict nature reserve
- wilderness area
- national park
- natural monument
- habitat/species management area
- protected landscape/seascape
- managed resource protected area.

A management plan may divide a Commonwealth reserve into zones and assign each zone to an IUCN category. The category to which a zone is assigned may differ from the category to which the reserve is assigned (s.367(2)).

The provisions of a management plan must not be inconsistent with the management principles for the IUCN category to which the reserve or a zone of the reserve is assigned (s.367(3)). See Section 3 of this Plan for information on Kakadu's IUCN category.

## 2.7 Lease agreements

As noted in Section 2.4, at the time of preparing this Plan approximately 50 per cent of the land within Kakadu National Park is Aboriginal land under the Land Rights Act leased to the Director by Aboriginal Land Trusts. Section 367(1)(d) of the EPBC Act requires that the Plan must be consistent with the lease agreements (see Section 2.5).

Most of the land in Stage One of the Park is leased by the Director from the Kakadu Aboriginal Land Trust, three areas in Stage Two are leased from the Jabiluka Aboriginal Land Trust, and approximately half of Stage Three is leased from the Gunlom Aboriginal Land Trust.

The lease agreements reserve the right of Aboriginals to enter and use the leased land in accordance with Aboriginal tradition and outline the Director's obligations in regards to the management of Aboriginal land declared under the Land Rights Act.

The lease agreement with the Gunlom Aboriginal Land Trust includes special provisions about managing and protecting sacred sites, particularly the Sickness Country, rehabilitation of old mine workings in the Gunlom Land Trust area, and control of Aboriginal cultural material.

The full provisions of the leases at the time of preparation of this Plan are included as Appendix A to this Management Plan.

Section 4.1, Making decisions and working together, outlines the role of the Northern Land Council under the lease agreements.



## 2.8 International agreements

This Management Plan must take account of Australia's obligations under relevant international agreements. The following agreements are relevant to the Park and are taken into account in this Management Plan.

### **World Heritage Convention**

The World Heritage Convention is an international agreement which encourages countries to ensure the protection of their own natural and cultural heritage. The convention's mission is to define and conserve the world's heritage by drawing up a list of sites whose outstanding values should be preserved for all humanity and to ensure their protection through a closer cooperation among nations. Parties to the convention undertake to identify, protect, conserve, present and transmit to future generations the World Heritage listed sites on their territory.

Stage One of the Park was inscribed on the World Heritage List in 1981 and Stage Two in 1987. The whole of the Park was listed in December 1992. Kakadu is one of the few sites that are listed under the World Heritage Convention for both cultural and natural values. Appendix B to this Plan summarises the features of Kakadu that meet the cultural and natural World Heritage criteria.

### **Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)**

The Ramsar Convention is an international agreement which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The convention aims to stop the world from losing wetlands and to conserve, through wise use and management, those that remain. More than 90 countries are contracting parties to the convention.

Sites are selected for the List of Wetlands of International Importance under the Ramsar Convention because of ecological, botanical, zoological, limnological or hydrological importance. Wetlands in Stage One of Kakadu were listed in 1980; wetlands in Stage Two in September 1987; and wetlands in Stage Three that are part of the South Alligator River catchment in 1996. Some 683 000 hectares of Kakadu National Park are included in the Ramsar list.

Australian Ramsar management principles are prescribed by the EPBC Regulations (Schedule 6). An extract from the principles is at Appendix F to this Plan.

In March 1996, the contracting parties to the Ramsar Convention agreed to establish an East Asian–Australasian Flyway to protect areas used by migratory shorebirds. The flyway provides for an East Asian–Australasian shorebird reserve network of sites that are critically important to migratory shorebirds. The wetlands of Kakadu National Park are part of this reserve network.

### **Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)**

The Bonn Convention aims to conserve terrestrial, marine and avian migratory species throughout their range. Parties to this convention work together to conserve migratory species and their habitats. Thirty-nine of the species listed under the Bonn Convention are found in Kakadu.

## **CAMBA**

CAMBA provides for China and Australia to cooperate in the protection of migratory birds listed in the annex to the agreement and their environment, and requires each country to take appropriate measures to preserve and enhance the environment of migratory birds. Fifty-two species listed under CAMBA occur in Kakadu

## **JAMBA**

JAMBA provides for Japan and Australia to cooperate in taking measures for the management and protection of migratory birds, birds in danger of extinction, and the management and protection of their environments, and requires each country to take appropriate measures to preserve and enhance the environment of birds protected under the provisions of the agreement. Forty-nine species listed under JAMBA are found in Kakadu.

Appendix E to this Management Plan lists species found in the Park that are listed in or under the Bonn Convention, CAMBA and JAMBA and also listed under the EPBC Act.

# Part 2

## How the Park Will be Managed



## 3. IUCN category

### 3.1 Assigning the Park to an IUCN category

#### **Our aim**

The Park is managed in accordance with an IUCN protected area category and relevant management principles to protect Park values while providing for appropriate use.

#### **Measuring how well we are meeting our aim**

- Degree of compliance of management with the relevant Australian IUCN reserve management principles

#### **Background**

As noted in Section 2.6, the EPBC Act requires this Management Plan to assign the Park to an IUCN category. The EPBC Regulations prescribe the management principles for each IUCN category. The category to which the Park is assigned is guided by the purposes for which the Park was declared (see Section 2.4, Legislative context). The purposes for which Kakadu National Park was declared are consistent with the characteristics for the IUCN protected area category ‘national park’.

#### **What we are going to do**

##### *Policy*

- 3.1.1 The Park is assigned to the IUCN protected area category ‘national park’ and will be managed in accordance with the management principles set down in Schedule 8 of the EPBC Regulations and listed in Appendix G:
- Natural and scenic areas of national and international significance should be protected for spiritual, scientific, educational, recreational or tourist purposes.
  - Representative examples of physiographic regions, biotic communities, genetic resources, and native species should be perpetuated in as natural a state as possible to provide ecological stability and diversity.
  - Visitor use should be managed for inspirational, educational, cultural and recreational purposes at a level that will maintain the reserve or zone in a natural or near natural state.
  - Management should seek to ensure that exploitation or occupation inconsistent with these principles does not occur.
  - Respect should be maintained for the ecological, geomorphologic, sacred and aesthetic attributes for which the reserve or zone was assigned to this category.
  - The needs of Indigenous people should be taken into account, including subsistence resource use, to the extent that they do not conflict with these principles.
  - The aspirations of traditional owners of land within the reserve or zone, their continuing land management practices, the protection and maintenance of cultural heritage and the benefit the traditional owners derive from enterprises established in the reserve or zone, consistent with these principles, should be recognised and taken into account.

## 4. Joint management

Joint management is Aboriginal landowners and Parks Australia working together and deciding what should be done to manage the Park with and on behalf of traditional owners and for other interests. Joint management is about working together to enhance and protect Aboriginal rights and interests while looking after the natural and cultural values of Kakadu National Park, and providing opportunities for visitors to experience and appreciate these values safely.

### 4.1 Making decisions and working together

#### Our aim

Kakadu National Park is managed to the highest standards that meet expectations of the Australian community for protection of natural and cultural values, and of Bininj traditional owners to meet their obligations to country and satisfy their peoples' aspirations for benefits from land ownership. In doing this, the Director and Bininj work together to make shared informed, consistent, transparent and accountable decisions.

#### Measuring how well we are meeting our aim

- Level of satisfaction of Bininj and the Board with implementation of this Plan
- Timely completion of actions
- Level of satisfaction of Bininj with their involvement in implementation of this Plan
- Proportion of all significant management decisions made in accordance with the decision-making guidelines
- Level of satisfaction of other stakeholders with the transparency and accountability of decision-making for the Park's management

#### Background

To manage the Park, decisions must be made about a wide range of matters at many levels. The Director and Aboriginal traditional owners share decision-making and consult relevant stakeholders, in accordance with the prescriptions (policies and actions) in this Section.

The EPBC Act gives the Director the function of administering, managing and controlling the Park and protecting biodiversity and heritage in the Park. The Act and the EPBC Regulations give the Director a number of specific powers to assist in the performance of these functions eg power to determine park entry and use charges, to control certain activities and to issue permits. The Director must carry out these functions and use these powers in accordance with this Plan.

Under the EPBC Act, the Board of Management has the function of preparing the management plan with the Director and making decisions about the management of the Park that are consistent with the plan. The Director will comply with decisions of the Board that give effect to the plan. The Board also monitors management of the Park and advises the Minister, in conjunction with the Director. The Board of Management generally makes high level policy and strategic decisions about Park management. Park staff make day-to-day management decisions and exercise powers on behalf of the Director in accordance with the management plan, Board decisions and the EPBC Act and other legislation.

The Director has a number of obligations under the lease agreements with the Kakadu, Jabiluka and Gunlom Aboriginal Land Trusts to protect Bininj interests and culture. Together with the EPBC Act, the leases are key documents for guiding decision-making, and the EPBC Act requires this Plan to be consistent with the Director's lease obligations. The full provisions of the leases as at 2006 are included as Appendix A to this Plan.

The Northern Land Council (NLC), which is established under the Land Rights Act, has broad functions to assist and represent the interests of the traditional Aboriginal owners of land and other Aboriginals. Under the Park leases the NLC has a number of specific roles, including to be consulted regularly about the management of the Park. Under the EPBC Act the Director is required to consult the NLC about park management generally and in relation to preparation of management plans in particular.

While the formal decision-making structures in the Park set the framework for making legal decisions and allow Bininj cultural practices to be included, these structures are not recognised under Bininj cultural protocols and practices. Under Bininj cultural protocols and practices, Bininj landowners are responsible for making decisions about their country and are guided by Bininj customary decision-making structures, seniority and kinship obligations. To help ensure that Bininj are involved in formal decision making processes related to managing and making decisions about their country in the Park, Park staff consult and make shared decisions with Bininj on a range of day-to-day management issues under guidelines developed by the Board in collaboration with the NLC. In carrying out consultations with Bininj, assistance may be sought from the NLC and relevant Aboriginal associations to arrange consultations with, and provide information for, Bininj.

*'Well you got different clan groups – they talk for their land, they talk for their ceremony sites, they talk for their culture way – we talk for ours.'*

#### **Bessie Coleman, Wurrkbarbar/Jawoyn Clan**

To help the Board make informed decisions, the Board has established the Kakadu Tourism Consultative Committee (KTCC) and the Kakadu Research Advisory Committee (KRAC). The KTCC provides the Board with advice on tourism issues and the views of tourism stakeholders in a structured way. The primary purpose of the KRAC is to provide advice to the Board on research issues and priorities for the Park. The KRAC members are researchers with experience in natural and cultural resource management.

The Director and the Board try to consult stakeholders and provide them with as much advance notice as possible about decisions that may affect them. However, sometimes decisions need to be made quickly, such as where there may be immediate threats to Park values, assets or people's safety. In these situations, where prior consultation or notice is not possible, affected stakeholders are informed of the decision as soon as possible.

#### **Issues**

- The Board, Director and Park staff need to make decisions and manage the Park in accordance with the EPBC Act, the lease conditions, this Plan, the EPBC Regulations and other Balanda laws but must include Bininj and use Bininj cultural protocols, practices, laws and customs (including clan based decision-making) to the greatest extent possible.

- At the time of preparing this Plan not all of the land in the Park is Aboriginal land under the Land Rights Act but management to date (including composition of the Board, and previous management plans) has been based on the principle of managing the whole Park as if it is Aboriginal land.
- Values important to Bininj, as well as other recognised values, need to be understood and protected.
- People involved in decision-making should have equal access to accurate and relevant information.
- The Board needs adequate resources to carry out its functions under the EPBC Act.
- How the NLC carries out its broad role in relation to decision-making, particularly day-to-day decisions by Park staff, needs to be made clear.
- Stakeholders should be consulted in structured and timely ways as far as possible.
- Consultation and decision-making processes need to be clear and consistently followed. Records of consultations and decisions need to be properly kept.

## **What we are going to do**

### *Policies*

- 4.1.1 Decision-making will be based on protection of the Park's natural and cultural values and be consistent with:
- the IUCN protected area category 'national park', and applicable management principles for that category, as prescribed by Section 3 of this Plan
  - where relevant, the Director's obligations under leases of Aboriginal land in the Park
  - the processes in Table 1.
- 4.1.2 Decision-making will take into account the impact assessment process for a proposed action as set out in Section 8.3, Assessment of proposals.
- 4.1.3 Bininj will be actively involved in decision-making and implementation of this Plan, including in the joint development, implementation and review of work plans, programs and projects.
- 4.1.4 Bininj cultural protocols and practices will be used in decision-making and management where consistent with this Plan and other legal requirements, including by:
- recognising that clans want to guide decision-making related to the management of their country in the Park
  - using these protocols when working on country.
- 4.1.5 The Park will be managed as if all land in the Park is Aboriginal land under the Land Rights Act. Where traditional ownership of land is unclear, the assistance of the NLC will be sought.
- 4.1.6 The Director will provide the Board with resources reasonably necessary for it to carry out its functions under the EPBC Act.

- 4.1.7 Subject to the Director's lease obligations, opportunities will be provided to involve Bininj in staff selection processes, which may require the involvement of Bininj from different clan groups.
- 4.1.8 Consultation guidelines developed by the Board and the NLC, and reviewed from time to time, will be used when consulting with Bininj.
- 4.1.9 The Director will provide appropriate assistance to the NLC to carry out its functions in the Park.
- 4.1.10 The KTCC will continue and will perform functions determined by the Board in consultation with the tourism industry.
- 4.1.11 The KRAC will continue and will perform functions determined by the Board.
- 4.1.12 Where stakeholders' interests will be affected they will, as far as practicable:
  - be consulted in a timely and structured way
  - have the opportunity to make comments on the development of strategies and guiding documents
  - have their views taken into account
  - be provided with the reasons for decisions
  - in the case of major decisions that may adversely impact on the tourism industry be provided with 12–18 months notice prior to implementation of the decision (except where immediate action is warranted).

### **Actions**

- 4.1.13 Negotiate and implement agreements with the NLC to assist it to carry out its functions in relation to the Park.
- 4.1.14 Provide induction programs for new Park staff which include:
  - two-way cross-cultural training and development
  - joint management and Park governance information
  - relevant government policy and job and site specific information.
- 4.1.15 Develop public communication strategies to help explain Park decisions where there is or may be strong public interest in an issue.
- 4.1.16 Maintain a central database that records all decisions made in consultation with traditional owners.



**Table 1 – Guide to decision-making**

Category	Example	Decision-making process
<p><b>Routine actions</b></p> <p>Actions that have no impact, or no more than a negligible impact, on the Park’s environment and natural and cultural values; on the interests of Bininj and/or stakeholders; and/or on visitor use or changes to existing facilities and services in the Park</p>	<ul style="list-style-type: none"> <li>• Minor capital works eg maintenance, replacement, repair or improvement of existing infrastructure in its present form</li> <li>• Regular/routine ongoing operations to implement prescriptions in this Plan eg patrols, weed control, fire management</li> <li>• Minor new operations to implement prescriptions in this Plan</li> <li>• Seasonal opening/closing of visitor areas</li> <li>• Issuing permits for regular activities in accordance with this Plan eg land-based tours, camping and research</li> <li>• Employment for day labour and seasonal programs</li> </ul>	<ul style="list-style-type: none"> <li>• Process accords with management plan policies, prescriptions and procedures and the Park’s Manual of Procedures</li> <li>• Bininj are consulted where necessary and in accordance with Board/ NLC consultation guidelines</li> <li>• Decision is made by an appropriate officer</li> </ul>
<p><b>Non-routine actions</b></p> <p>Actions that have more than a negligible impact, or have a significant impact, on the Park’s environment and natural and cultural values; on the interests of Bininj and stakeholders; and/or on visitor use or changes to existing facilities and services in the Park</p>	<ul style="list-style-type: none"> <li>• Moderate or major capital works eg new infrastructure or expansion/ upgrade of existing infrastructure such as outstations, realignment of roads, new campgrounds</li> <li>• Rehabilitation of heavily eroded sites and mines</li> <li>• Major new operations or developments to implement prescriptions in this Plan</li> <li>• Developments for approved existing tourism activities that require major works eg safari camps</li> <li>• Major/long-term changes to existing visitor access arrangements</li> <li>• Expansion of the Jabiru township</li> <li>• Tour operator accreditation system</li> <li>• New types of commercial activities</li> <li>• Issuing of leases/licences</li> <li>• Employment of Park management staff</li> </ul>	<ul style="list-style-type: none"> <li>• Process accords with management plan policies, prescriptions and procedures</li> <li>• Bininj are consulted where necessary and in accordance with Board/ NLC consultation guidelines</li> <li>• KTCC and/or KRAC are consulted as necessary</li> <li>• Relevant stakeholders are consulted/informed</li> <li>• Decision is made by Board of Management</li> </ul>

## 4.2 Opportunities for Bininj from country

### Our aims

- Bininj assume more responsibilities related to the administration, control and management of the Park and have more opportunities to earn income and gain jobs on country.
- Young Bininj learn about their culture and participate in the management of the Park.

### Measuring how well we are meeting our aim

- Number of Bininj and Bininj businesses employed directly or indirectly in Park management activities
- Type, level and location of positions filled by Bininj, directly or indirectly, in Park management activities
- Number and type of Park management programs provided for young Bininj and level of engagement

### Background

Kakadu National Park contributes tens of millions of dollars to the Northern Territory economy each year through tourism and purchase of significant quantities of goods and services from local suppliers. However, the Kakadu Region Social Impact Study (1997) highlighted the fact that, despite the economic activity generated in the region, Aboriginal people in the Kakadu region are not greatly benefiting from regional economic development.

The Park lease agreements require the Director to provide a range of social and economic benefits for Bininj. These include promoting Aboriginal administration, management and control of the Park and subject to this Plan, engaging as many Relevant Aboriginals (as defined in the lease agreements for the Park) as is practicable to provide services in and in relation to the Park. During the life of the previous (4th) Plan, numbers of Bininj employed in the Park increased, and some support mechanisms such as training were established to assist Bininj staff members. Paying an annual rent and a percentage of the charges collected in the Park and providing a range of employment, enterprise and training opportunities related to the Park are also requirements of the lease agreements.

Under the leases, the Director is also required to encourage the maintenance of the Aboriginal tradition of Bininj. In this way, the lease agreements support the wishes of Bininj to apply their knowledge and skills and to learn new skills by participating in programs that incorporate Bininj and Balanda ways of looking after and using country, and passing this knowledge on to younger generations. A description of the lease provisions at the time of preparing this Plan is at Appendix A.

### Issues

- Bininj want to benefit more from the economic activity associated with the Park, either through direct employment or by developing their own or joint enterprises.
- Bininj want to develop the skills they need to work in a range of positions related to the administration, control and management of the Park and to ensure that Bininj land management skills are maintained.
- Senior Bininj would like young Bininj to learn about their culture, country and park

management so they can be actively involved in the management of the Park in the future.

## **What we are going to do**

### ***Policies***

- 4.2.1 The Director will work with Bininj and relevant stakeholders to develop partnerships and other ways of increasing benefits for Bininj, related to implementation of this Plan. This may involve linking Bininj with, and providing support for, people who can provide relevant skills development, advice and appropriate development opportunities.
- 4.2.2 The Director will seek to engage as many Bininj as possible to implement this Plan. Ways to do this will include but not be limited to:
- providing Bininj with a range of permanent, contract and flexible employment opportunities and associated learning and development support
  - designing jobs to incorporate Bininj land management skills and knowledge
  - regularly reviewing the delivery of Park management services with a view to contracting services to Bininj and to Bininj organisations
  - encouraging external contractors to employ Bininj, including providing apprenticeships where practicable
  - where practicable, subject to the Director's other legal obligations, engaging Bininj and Bininj organisations to provide services in and in relation to the Park.
- 4.2.3 During the day-to-day management of the Park, Park staff will work with Bininj in ways that help Bininj to develop their capacity to progressively assume more responsibilities related to the administration, control and management of the Park.
- 4.2.4 Where practicable, subject to other legal obligations, the Director will provide Bininj and Bininj organisations with a range of training and employment opportunities related to management of the Park.
- 4.2.5 Processes will be implemented to assist Bininj to relay issues or concerns to the Board for consideration.
- 4.2.6 The Park Manager will report to the Board quarterly about Bininj employment and Bininj learning and development outcomes.

### ***Actions***

- 4.2.7 Develop, implement and regularly review Bininj learning and development strategies linked to implementing this Plan. Where possible strategies will take a collaborative and regional approach and will include provision for:
- accredited training and studies
  - literacy and numeracy development
  - Bininj customary land management skill development

- ongoing career development, mentoring and coaching, including supervisory and management skill development
- learning and development opportunities for potential Bininj employees
- working with stakeholders to help facilitate Bininj enterprise development.

4.2.8 With Bininj, develop and implement programs that help teach young Bininj about culture, country and park management, and where possible work with other organisations to do this. These programs may include:

- developing a cross-cultural junior ranger or similar program
- providing opportunities for school-to-work transition programs and traineeships
- developing a community ranger program
- providing Park career and employment information
- providing work experience opportunities.

### 4.3 Customary use of resources

#### Our aim

Bininj’s customary economy continues to contribute to the maintenance of culture and to meeting conservation goals for the Park, in accordance with Aboriginal cultural practices.

#### Measuring how well we are meeting our aim

- Extent to which Bininj are satisfied that people are using country in accordance with traditional law
- Extent to which species or populations important in the customary economy have a healthy conservation status

#### Background

Bininj have used the land and its resources for many generations and continue to use many of the Park’s natural resources for a wide variety of customary uses. These include the use of plants and animals for food, art and craft and other cultural purposes. The present-day collection and use of plant and animal resources by Bininj involves using a combination of traditional and contemporary methods and knowledge.

Section 359A of the EPBC Act states that the provisions of the Act and Regulations dealing with activities in Commonwealth reserves do not prevent traditional use of land by an Aboriginal person for non-commercial hunting or gathering, provided it is done in accordance with other applicable laws.

More generally, s.8 of the Act provides that the Act does not affect the operation of s.211 of the *Native Title Act 1993* and s.71 of the *Land Rights Act* which provide for traditional use of land, including non-commercial hunting, fishing and gathering, by Aboriginal people.

Bininj are concerned that from time to time Aboriginals who do not have traditional rights and have not been authorised under Bininj cultural protocols and practices carry on hunting and gathering in the Park.

*'Respect for country – when you visit someone else's country you have to have respect for them and how they manage their country – how they hunt. You're breaking traditional culture if you just go in and do what you want. It's the most important thing and you send a message first to tell them that you're coming.'*

### **Goldie Blyth, Minaga clan**

Hunting in the Park by Aboriginal people became a major issue during the life of the 4th Plan and one issue of concern continues to be the use of lead shot. Lead is a toxic substance that can harm humans, wildlife and the environment. The most common lead poisoning in wildlife is considered to be the result of ingestion of spent lead shot.

Possession and use of firearms (and other types of hunting equipment) are prohibited by Regulation 12.18 of the EPBC Regulations unless authorised by this Plan or a permit issued by the Director (or where another exemption prescribed by r.12.06 applies).

Commercial use of wildlife by Bininj is dealt with in Section 5.10 of this Plan.

### **Issues**

- There continue to be incidents of taking of wildlife by people who do not have traditional or native title rights to do so.
- Customary harvest can be an important indicator of the success of habitat management programs and status of important species.
- Bininj customary taking and use of natural resources must be ecologically sustainable and not have negative impacts on the health of country or on the long-term availability of resources for Bininj.
- Traditional and native title rights to take native species are subject to laws of general application eg Northern Territory laws about possession and use of firearms.
- The Board, Director and Bininj agree that lead shot should not be used in the Park.

### **What we are going to do**

#### ***Policies***

- 4.3.1 Bininj and other Aboriginals who have been authorised under Bininj cultural protocols and practices may, with the approval of the Board, take native species of animals and plants and will not require a permit from the Director provided it is done:
- in accordance with traditional or native title rights
  - for non-commercial purposes
  - in accordance with laws of general application, including Northern Territory laws dealing with possession and use of firearms
  - in a sustainable way that does not impact on the conservation status of a species.

- 4.3.2 The Board may withdraw approval under Section 4.3.1 for the taking of animals by the use of firearms if it is satisfied that any of the prescribed criteria are not being met. If approval is withdrawn the activity may be carried on under a permit issued by the Director under the EPBC Regulations authorising possession and use of firearms. Permit conditions may include restrictions on areas where firearms can be used and numbers of animals that may be taken.
- 4.3.3 Lead shot should not be used in the Park.

### **Actions**

- 4.3.4 The Board and the Director will work with Bininj to develop and implement strategies for managing and promoting the sustainable customary taking of wildlife by Bininj, including the management of visitor access issues that may impact on Bininj customary use of the Park.
- 4.3.5 Investigate ways of incorporating customary use in programs for monitoring the status of important species and landscapes.
- 4.3.6 The Board and the Director will work with Bininj to discourage use of lead shot, prohibit its use if possible, and encourage its replacement with more benign alternatives.

## **4.4 Living on country**

### **Our aim**

Bininj establish living areas in the Park that meet their needs while minimising the impact on Park values.

### **Measuring how well we are meeting our aim**

- Extent to which requests are considered and decisions made within timeframes determined by the Board
- Extent of compliance with approval procedures for the development of living areas
- Extent to which impacts on Park values are within acceptable levels

### **Background**

The Park lease agreements provide for Bininj to reside on Aboriginal land in the Park:

- at places Bininj were residing when the leases began (1978 Kakadu Aboriginal Land Trust, 1991 Jabiluka Aboriginal Land Trust, and 1995 Gunlom Aboriginal Land Trust)
- at other locations specified in management plans for the Park
- subject to reasonable constraints in this Plan for reasons of safety, security, privacy or protection of the Park.

Bininj living areas have been established in some areas of the Park. It is likely that Bininj will want to establish more living areas over the life of this Plan, particularly in the southern section of the

Park. The Board and the Director support the development of appropriate living areas, as it can facilitate greater Bininj involvement in the management of the Park and assist Bininj to maintain links to their culture and country. However, establishment and maintenance of living areas (and obtaining the necessary resources) are the responsibility of the individuals or organisations concerned. It is not the role of the Director or the Board to commit resources to establish and maintain living areas although non-financial assistance may be provided from time to time in response to specific requests eg to help with grading an access track, subject to available resources and other Park management requirements.

Advice is required from the NLC on the traditional rights of people to establish living areas and reside in the Park and on the views of relevant traditional Aboriginal owners in relation to living area proposals.

Establishment and maintenance of living areas involves the carrying out of works and, because of s.354(1) of the EPBC Act, can only be done in accordance with this Plan. Approval for a living area may involve the creation of a 'usage right' in relation to the land concerned (a usage right is defined in s.350(7) of the EPBC Act as an estate or a legal or equitable charge, power, privilege, authority, licence or permit). Under s.358 of the Act, the Director cannot give a usage right in relation to land in the Park except by granting a lease, sublease or licence in accordance with this Plan.

### **Issues**

- Living areas should only be developed by people with relevant traditional rights in areas approved by the traditional owners of the area.
- Development and management of living areas needs to be properly resourced (including where necessary provision of essential services).
- Development of living areas must not adversely impact on Park values.

### **What we are going to do**

#### ***Policies***

- 4.4.1 Development of new living areas will require approval of the Board.
- 4.4.2 Approval may be given by way of lease, sublease, or licence, and may be given subject to conditions.
- 4.4.3 The Director will liaise, and where appropriate work, with relevant organisations (including funding and service delivery agencies) in relation to living area development and management.
- 4.4.4 Proposals to develop living areas (including expansion of existing living areas) will be dealt with as follows:
  - proposals to establish living areas will be referred by the Director to the NLC for advice as to the traditional rights of the proponent and proposed residents to reside at the place chosen, and as to the views of the relevant traditional owners

- on receipt of the NLC's advice the proposal will be referred to the Board to decide whether to give in-principle approval
- if the Board gives in-principle approval the proposal will be considered in accordance with Section 8.3, Assessment of proposals
- if the proposal requires environmental assessment under Section 8.3 but is not a controlled action under the EPBC Act, the assessment will be carried out within three months of the proposal being received unless it is not practicable to do so within that period
- following assessment under Section 8.3, the proposal will be referred to the Board to advise whether it agrees to the Director approving the development
- if the Board agrees to the proposal the Director may give approval for the proposal to proceed.

**Action**

- 4.4.5 Work with residents to help minimise the impact on Park values from living areas, and to ensure compliance with approval conditions.



## 5. Looking after country and culture

Kakadu National Park is a living cultural landscape. There is a strong relationship between Bininj and country, ongoing traditions, cultural practices, beliefs and knowledge. This living Aboriginal culture in Kakadu is diverse and many clans look after and speak for different areas of country. Management and use of the land by past and present generations of Bininj has helped to shape the landscapes we see today. These landscapes are biologically rich, with a range and concentration of species matched in few other places. Maintaining healthy landscapes will help to maintain the World Heritage recognised conservation values of the Park, and the community of traditional owners.

Bininj will guide and be involved in all aspects of the management of cultural heritage, including protecting rock art sites and sacred sites.

Bininj and Parks Australia will work together, sharing knowledge, to look after country through proper fire management, and management of weeds and feral animals. Bininj's right to use country for customary purposes will continue, and opportunities for Bininj to gain economic benefits from country through sustainable use of wildlife will be explored.

Opportunities for younger generations of Bininj to gain knowledge about and be involved in caring for country will be a priority in all these activities.

*'Bininj culture really strong...very strong for us Bininj. When I was a girl my grandmother, I learn. Same thing I do with younger generation. You have to look after country, for your grandfather country, like mother country, take care.'*

Yvonne Margurulu, Mirrar clan

### 5.1 Bininj cultural heritage management

#### Our aim

Bininj cultural heritage is protected and maintained and Bininj guide its management and use.

#### Measuring how well we are meeting our aim

- Extent to which Bininj are actively involved in protecting and maintaining cultural heritage
- Condition of and access to cultural materials through proper storage and access protocols

#### Background

Kakadu represents a continuing cultural tradition thought to be linked to the earliest known occupation of Australia. The different landscapes within the Park have been occupied and actively managed by many generations of Bininj, and strong spiritual associations and interactions between Bininj and country continue today.

The tangible aspects of Bininj cultural heritage such as artefacts, rock art sites and other cultural sites are well known. However, Bininj cultural heritage also includes detailed knowledge of beliefs regarding the creation era, plants, animals, landscapes, fire, languages, seasonal changes, traditional skills and the history of the Kakadu region.

For many years, the primary focus of cultural heritage management work in the Park has been the management of the tangible aspects of Bininj culture, in particular the protection of rock art sites. While this work is important to Bininj, they would like more resources and priority given to managing the intangible aspects of their culture. At the request of Bininj, more resources have been committed to recording aspects of Bininj knowledge. This includes recording and storing many of the region's place names, creation stories, information on plant and animal resource use and personal oral histories of some senior Bininj. Some of this information has been incorporated into Park interpretation materials. Since the Park was declared, researchers and educational institutions have also documented a number of the local Aboriginal languages.

The cultural heritage of Kakadu also includes Balanda use and occupation of the landscape. Protecting this heritage is important for Bininj and Balanda. There are many historic sites in the Park associated with land uses such as pastoralism, mining and tourism. Some of the people associated with these and other activities, such as buffalo and crocodile harvesting, are alive today and have detailed local historical knowledge of the Kakadu region and previous interactions between Bininj and Balanda.

Some Bininj artefacts have been returned to the Park from museums. If museums are prepared to return items to the Park, they will generally only do so if they can be sure that these items can be stored in ways that meet museum standards.

The cultural heritage values of the Park are recognised as being of international significance through the World Heritage listing of the Park. The lease agreements require the Director to fulfil specific requirements relating to the protection and maintenance of Bininj cultural heritage. Refer to Appendix B for a full description of the World Heritage cultural criteria of the Park.

During the life of the previous (4th) Plan, a Bininj cultural heritage workshop was conducted in Kakadu and a review of Indigenous cultural and intellectual property issues was undertaken.

## **Issues**

- Bininj want to be able to guide decisions about the cultural heritage management programs and priorities in the Park and to protect their cultural knowledge and materials. Bininj also want to make sure that there is culturally appropriate access to cultural materials and to have somewhere that materials are safely stored and can be viewed in private.
- Bininj want to ensure that their customary skills and knowledge are used in the management of the Park. They also want their knowledge to be passed on to younger Bininj.
- During the recent past, many Bininj and Balanda who have important knowledge about country and historical land uses within the Kakadu region have passed away. It is important that the documentation of oral histories, in particular of elderly Bininj, continues as a matter of urgency.

## **What we are going to do**

### ***Policies***

- 5.1.1 In accordance with this Plan and the lease agreements, the Director will support Bininj, through training and resourcing, with guiding the management of cultural heritage resources and programs within the Park.

- 5.1.2 Maintaining and developing Bininj cultural knowledge and skills will be recognised as important Park work by:
- applying Bininj knowledge, skills and priorities in the development and implementation of natural and cultural heritage management programs
  - recognising cultural knowledge and skill development as important components of staff development.
- 5.1.3 The use of Bininj languages and language training will be supported and encouraged in the Park.
- 5.1.4 As appropriate and subject to Bininj approval, Balanda place names used in the Park will be replaced with local Bininj place names.

### ***Actions***

- 5.1.5 Develop strategies to help protect, and support Bininj to guide the use and management of, their cultural material and knowledge. These strategies will include:
- protecting knowledge from inappropriate use, including providing public education about issues of concern to Bininj
  - developing access, storage and usage protocols and systems for materials (including oral history materials) held by the Director
  - providing private areas where Bininj can view materials.
- 5.1.6 Work with Bininj, museums and other organisations to facilitate return of cultural materials to the Park from museums, if requested by Bininj.
- 5.1.7 Establish and implement strategies to facilitate Bininj independently managing cultural heritage maintenance activities, including the documenting of cultural knowledge. Make opportunities to involve young Bininj in these activities.
- 5.1.8 Facilitate on-country activities to encourage intergenerational transfer of knowledge between elders and the younger Bininj generation.
- 5.1.9 Provide resources for recording the knowledge and life histories of elderly or frail Bininj and other people identified by Bininj, including Balanda.

## 5.2 Aboriginal sites of significance

### Our aim

Through working with Bininj, Aboriginal sites of significance are protected and maintained.

### Measuring how well we are meeting our aim

- Extent of Bininj participation in the planning and management of sites of significance
- Adequacy of cultural site inventories
- Level of compliance with relevant legislation and Bininj protocols regarding access to Aboriginal sites of significance
- Degree to which Sickness Country protocols are implemented

### Background

There are several kinds of sites and places within the Park that are especially significant to Bininj. These sites reflect and express Aboriginal cultural beliefs and practices. They include areas that relate to the activities that took place during the creation era and the travels of Nayuhyunggi (Gundjeihmi language), the first people. They may also include significant rock art and occupation sites. Access to sites of significance is often restricted in accordance with Bininj cultural practices. Restrictions vary between sites and may be based on social position and knowledge of ceremonies and rituals relevant to the site. Some sites are considered dangerous places.

Ceremonial areas and other sites of special significance to Bininj are located throughout the Park. A register of many of these sites has been established in consultation with Bininj, the Aboriginal Areas Protection Authority and the NLC.

The Land Rights Act and the *Northern Territory Aboriginal Sacred Sites Act* (NT) (Sacred Sites Act) provide formal legal protection for sacred sites, defined as sites that are sacred to Aboriginals or otherwise of significance according to Aboriginal tradition. The Sacred Sites Act applies in relation to Kakadu except to the extent that it is inconsistent with the EPBC Act.

A number of sites have been formally registered under the Sacred Sites Act by the Aboriginal Areas Protection Authority.

Sickness Country is a particularly important area of land that covers over 2000 square kilometres of country within the southern area of the Park (see Annexure A to Appendix A). Bula is a major figure associated with the creation era whose essence is now located within Sickness Country. It is said that Bula is linked with a number of focal sites within the Sickness Country, that there are spheres of influence around these focal sites, that these sites are interconnected, and that if Bula is disturbed the result would be catastrophic for all. The Bula tradition has been well documented and both the Bula tradition and implications for managing the Sickness Country are outlined in the report of the Resource Assessment Commission Inquiry into the Kakadu Conservation Zone (Resource Assessment Commission 1991). Under Jawoyn cultural practices, strict rules and protocols relate to accessing and using the Sickness Country.

Special provisions regarding the management of Sickness Country are in the lease agreement with the Gunlom Aboriginal Land Trust. The Director is required to manage Sickness Country, particularly access, in line with the directions of Jawoyn traditional owners. Many roads and some cultural sites of significance within Sickness Country have been closed to public access.

### **Issues**

- Bininj want to be able to guide and make decisions about the management of sites of significance within the Park to fulfil and support the maintenance of cultural practices associated with site management.
- It is important to Bininj that only the right people enter certain sites in accordance with cultural practices and only culturally appropriate activities occur within the sites, including Sickness Country. Rules for accessing Sickness Country need to be made available for Park staff, researchers, visitors and Aboriginal people from other areas. It is important that rules on management of access to these sites are clear, respected and followed.
- There is also concern that without appropriate storage, some images (such as photographs and videos) of sites of significance may potentially be viewed by people who are not properly authorised to do so under Aboriginal cultural practices. Many of these images were recorded prior to the development of rules for the management of commercial filming and photography in the Park. This issue is addressed in Section 6.13, Filming, photography and audio recording (see also Section 5.1, Bininj cultural heritage management).

### **What we are going to do**

#### ***Policies***

- 5.2.1 The Director will provide support to Bininj to guide how sites of significance are managed within the Park. Only those management actions that have been requested or approved by Bininj, and guided by Bininj, will be implemented.
- 5.2.2 As far as practicable and subject to this Management Plan, sacred sites will be managed in accordance with the Sacred Sites Act.
- 5.2.3 Sickness Country will be managed in accordance with the provisions of the Gunlom Land Trust lease until protocols for Sickness Country are developed by traditional owners and the NLC.
- 5.2.4 Park staff will consult Bininj regarding the potential location of sites of significance when preparing development proposals or environmental impact assessments.
- 5.2.5 When requested by Bininj, Park staff will ensure that visiting researchers who wish to enter sites of significance are accompanied by appropriate Park staff and are aware of appropriate behaviour at such places.
- 5.2.6 Access to sites of significance may be restricted at the request of Bininj and the Director may restrict or prohibit access in accordance with EPBC Regulations (see Section 6.2, Access and site management).
- 5.2.7 Where appropriate and following consultation with Bininj, interpretive materials may be developed regarding sites of significance.

## **Actions**

- 5.2.8 Maintain a register of sites of significance and develop access protocols in consultation with Bininj and in accordance with relevant Northern Territory legislation.
- 5.2.9 Work with Bininj, NLC and Northern Territory Government agencies to develop protocols for accessing and managing sacred sites, including Sickness Country.
- 5.2.10 Provide resources and training if necessary, to support Bininj to manage cultural sites and landscapes, including undertaking site and visitor management and monitoring programs.
- 5.2.11 Where requested by relevant Jawoyn people, erect signs at appropriate locations highlighting the significance of Sickness Country and outlining access restrictions.

## **5.3 Rock art and archaeological sites**

### **Our aim**

Through working with Bininj, rock art and other archaeological sites are protected and conserved in a manner consistent with national and international obligations.

### **Measuring how well we are meeting our aim**

- Extent of Bininj participation in the planning and management of rock art and archaeological sites
- Condition of art and other archaeological sites as recorded through the maintenance reporting system

### **Background**

The rock art and other archaeological sites within Kakadu are sites of significance for Bininj, as a strong association exists between these sites and their living traditions and beliefs. Rock art also provides a wealth of cultural knowledge by showing objects, animals and activities familiar to people today. The significance of these sites has been recognised internationally through the World Heritage listing of the Park.

Public access is provided to three major rock art sites within the Park at Burrunggui (Nourlangie Rock), Ubirr and Nanguluwurr. Walking tracks, boardwalks and interpretation materials have been provided at these sites. To assist in preventing vandalism, full-time surveillance is provided at Ubirr when the site is open to the public.

Other archaeological sites are numerous in Kakadu and they reflect how Bininj have managed the country over thousands of years. Sites include occupation deposits in rock shelters, quarries where stone material was extracted and processed for tool making, human burial sites, stone or bone arrangements, surface scatters of stone, and earth and shell mounds.

### **Issues**

- It is important that Bininj play a lead role in determining priorities for rock art and other archaeological site management and research programs, and are actively involved in this work.

- Access to public rock art and archaeological sites needs to be managed carefully and information regarding the conservation requirements of these sites should be available for Park visitors.
- Serious physical damage to rock art may be caused by water flowing over the rock and removing pigment or depositing salts and minerals on the painted surface. Other damaging agents include vegetation, fire, mud building wasps, termites and people touching or vandalising paintings. Feral animals may also damage archaeological sites.
- Bininj are concerned about visitors accessing some escarpment areas where there are many culturally sensitive areas including rock art sites.

## **What we are going to do**

### ***Policies***

- 5.3.1 Rock art and archaeological site conservation work will only be undertaken with the permission and involvement of Bininj.
- 5.3.2 No additional rock art or other archaeological sites will be opened for public access without the consent of Bininj.
- 5.3.3 Surveillance will be provided at public art sites as agreed with Bininj where there is a high risk of vandalism.

### ***Actions***

- 5.3.4 Develop, and review with Bininj, management measures that aim to minimise weathering, potential visitor impacts and other causes of damage to rock art and other archaeological sites within the Park, taking into consideration national and international obligations and advice from relevant experts.
- 5.3.5 Develop with Bininj a system for recording information on, and monitoring condition of, rock art and archaeological sites and for monitoring effectiveness of maintenance programs. Maintain information on a centralised database.
- 5.3.6 Consult with Bininj about access management and educational requirements for the Burrunggui (Nourlangie Rock) and Nanguluwurr sites and develop and implement agreed actions.
- 5.3.7 Provide support for Bininj to assess, and record cultural knowledge associated with, rock art sites.

## **5.4 Historic sites**

### **Our aim**

Post-contact historic sites in Kakadu are adequately recorded and conserved.

### **Measuring how well we are meeting our aim**

- Condition of post-contact historic sites
- Extent of Bininj participation in planning and management of post-contact historic sites

## Background

The first documented sustained contact that Aboriginal people from the Alligator Rivers Region had with non-Aboriginal people was with the Macassans during the late 17th century. Later, in 1818, British navigator Phillip King sailed up the South and East Alligator rivers but it was not until Port Essington was established on the Coburg Peninsula in 1838 and the explorer Ludwig Leichhardt passed through Kakadu in 1845 that ongoing contact with Balanda occurred.

The history of the Kakadu region after the mid-1800s is characterised by small-scale ventures such as crocodile and buffalo shooting, logging, pastoralism and early tourism ventures, most of which were economically marginal. Many of these ventures involved cooperation between Bininj and Balanda, so historic sites often bring up strong feelings for Bininj about individuals and the past as they represent a way of life and use of country that has now gone.

Uranium mining has had a significant impact on Bininj within the Kakadu region. Activity was focused within the central and southern regions of the Park, with the last mining activity in the upper South Alligator valley and the adjacent section of the Katherine River occurring in the 1950s. The mines in the southern area of the Park ceased production in 1964.

All of these industries affected local Aboriginal populations and have left a range of historic sites in the Park. Several studies have been undertaken to document the significance of historic sites and recommendations have been developed regarding future site management.

The Australian International Council on Monuments and Sites (ICOMOS) Burra Charter for the conservation of heritage places forms the basis of the recommended approach for making decisions about heritage sites. Accordingly cultural significance assessments and conservation plans have been prepared for some historic sites within the Park.

## Issues

- There are often varying perceptions of the significance and values of historic sites among Bininj, Park staff and other stakeholders.
- Natural weathering processes, fire and termites have damaged and degraded many of the historic sites within the Park. Conservation work may include restricting access to some sites, maintaining protection from fire and working to stabilise existing structures. High costs are associated with implementing conservation work, such as stabilising the structural integrity of old infrastructure.
- Many sites contain asbestos products making occupational health and safety (OHS) and public safety important considerations.
- Some Bininj and people working in the tourism industry would like to see some of the historic sites appropriately promoted as places for visitors. Access to such sites will be managed in accordance with Section 6.2, Access and site management.



## **What we are going to do**

### ***Policies***

- 5.4.1 Bininj and relevant Northern Territory Government authorities will be consulted regarding site conservation plans. Management priorities will then be determined according to the level of significance that Bininj and relevant Balanda assign to particular historic sites, and whether it is possible and cost effective to implement management recommendations.
- 5.4.2 Management programs will include assessments of required stabilisation and protection works, OHS risks and recommended risk management procedures, appropriate visitor use and ways of minimising potential visitor impacts.
- 5.4.3 In consultation with Bininj, visitor facilities and interpretation materials may be developed at significant historic sites. The interpretation will include both Bininj and Balanda historical perspectives.

### ***Actions***

- 5.4.4 Maintain a register of historic sites and conservation work undertaken. Where appropriate, seek to have sites entered on to relevant Australian and Northern Territory government registers and databases.
- 5.4.5 Implement management programs and conservation plans to protect and interpret historic sites in the Park, and to control public access and use.

## **5.5 Coastal management**

### **Our aim**

Through working with Bininj, the cultural and natural resources of the coastal and marine environment and islands within the Park are recognised, protected and maintained.

### **Measuring how well we are meeting our aim**

- Extent to which significant coastal and marine species are considered to have an acceptable conservation status
- Extent to which relevant actions in EPBC Act recovery plans for marine and coastal species, including turtles, are implemented
- Extent to which impacts from visitor use at Waldak Irrmbal (West Alligator Head) are within acceptable levels
- Extent of Bininj participation in planning and management of coastal and marine areas

### **Background**

The northern boundary of the Park follows the low water mark of the 120 kilometre stretch of coastline that separates the Park from the shallow waters of the Van Diemen Gulf. Gardangal (Field Island) and Djidbordu (Barron Island) are included within the Park. The marine environment

seaward of the low water mark of the northern coastline and each of the islands is under the jurisdiction of the Northern Territory Government.

Coastal and marine areas are very significant to Bininj. Numerous sites of significance are located within and adjacent to the Park. Bininj continue to hunt and gather a wide range of coastal and marine plant and animal species such as yams, bush apples, peanut trees, marine turtles, a variety of fish and stingrays. The substantial cultural heritage values associated with the area include land interest associations, the names of some significant terrestrial and marine sites, creation stories and Bininj oral histories.

The intertidal zone provides important habitat within the regional context for a diversity of sedentary and migratory shorebirds, many of which are listed under the EPBC Act and international conservation agreements. These include five species of marine turtles and the dugong. The Park also provides critical habitat for two endangered species of speartooth shark, one of which is endemic to the Park, and one vulnerable sawfish species. Mangrove and seagrass areas provide important breeding and nursery areas for a variety of fish, and seagrass areas surrounding Gardangal (Field Island) provide feeding areas and habitat for marine turtles and dugongs. The island also provides critical habitat for flatback turtles and is identified as a key monitoring site in the Recovery Plan for Marine Turtles in Australia (Marine Turtle Recovery Team 2003) made under the EPBC Act. Over 240 estuarine and coastal fish species have been identified within and in waters adjacent to the Park.

Commercial fishing targeting barramundi, salmon and mud crabs occurred within the Park until 1989. Commercial fishing has not been allowed in the Park since that time. The number of commercial fishing operations along the Kakadu coastline has increased over the last few years. Incidents of illegal fishing in the Park occur.

Waldak Irrmbal (West Alligator Head) is the only coastal section of the Park readily accessible by land during the dry season and is the focus for a number of recreational activities including boating, fishing, and coastal camping. This area is characterised by unpredictable weather, shifting sand banks and mudflats, and potentially dangerous wildlife such as crocodiles, stingrays, and marine stingers. A number of incidents involving boats and vehicles in the Waldak Irrmbal area have required emergency assistance from Park staff.

Over the last 10 years, there has been a significant increase in recreational boating and fishing activity along the Kakadu coastline. Activity is particularly high during neap tides at Waldak Irrmbal, Gardangal and in neighbouring waters. The West Alligator River is closed to fishing and boating access. Fishing in marine and coastal areas will be managed in accordance with Section 6.10 of this Plan.

The EPBC Act and the Land Rights Act, and the Park leases, provide for the continuation of traditional use of plant and animal resources within the Park. At the time of preparing this Plan no mining leases or exploration licences have been issued under the *Mining Act* (NT) in relation to marine areas adjacent to the Park.

## Issues

- Bininj want areas of cultural significance on the Park coastline and the adjacent marine areas to be protected and managed in consistent ways.

- More information is required on distribution patterns, habitat types and general ecology of marine species within and adjacent to the Park boundary to ensure management of the marine habitat is appropriate (see Section 8.6, Research and monitoring).
- Potential threats to coastal areas and the marine area adjacent to Field and Barron islands include:
  - by-catch of non-target species (such as turtles and sharks)
  - overharvesting of particular target species eg barramundi and reef fish
  - climate change and sea level rise
  - oil spills and release of other contaminants (eg ballast containing introduced marine organisms) from vessels located adjacent to the Park boundary
  - inappropriate use of turtle habitat, including nesting and feeding grounds.
- Issues associated with visitor use at Waldak Irrmbal include overcrowding at the camping areas, off-road driving, rubbish, dumping of fish waste which increases the potential risk of crocodile interactions, and unauthorised boat launching at Middle Beach.
- There have been a number of incidents involving commercial fishing operators illegally netting within the Park.
- Regular monitoring and surveillance by Park staff is difficult due to the remoteness of the coastal area and there may be significant time delays in responding to incidents.
- Visitors need to be aware of potential safety risks and related Northern Territory boating regulations when accessing the marine and coastal areas.

## **What we are going to do**

### *Policies*

- 5.5.1 Bininj will be involved in the management of the marine and coastal areas of the Park including undertaking research, and survey and monitoring programs.
- 5.5.2 The Director and the Board will work with relevant Northern Territory Government agencies and relevant traditional owners on the management of the marine and coastal environment adjacent to the Park.
- 5.5.3 Waldak Irrmbal will be managed to ensure that:
  - sites of significance to Bininj are protected
  - impacts on the coastal habitat are contained and within acceptable levels
  - visitor enjoyment by all Park users is consistent with the above
  - Park visitors use the site in as safe a manner as possible
  - land and sea access to and from the site is consistent with the above. This may include mechanisms for monitoring visitation to the area.

## **Actions**

- 5.5.4 Prepare a site plan for Waldak Irrmbal with Bininj, and in consultation with stakeholders including the Amateur Fishermen's Association of the Northern Territory.
- 5.5.5 Undertake regular surveillance and law enforcement patrols along the northern Park boundary.
- 5.5.6 The Director will take a lead role in liaising and cooperating with the Northern Territory Government and other relevant stakeholders including relevant traditional owners regarding the management of access to the Park, and improved management and protection of adjacent coastal and marine environments.
- 5.5.7 Implement relevant actions from EPBC Act recovery plans for marine and coastal species, including turtles.
- 5.5.8 Ensure pre-visit information for Kakadu includes information on safety and relevant regulations for boating and fishing in marine and coastal areas.

## **5.6 Landscapes, soils and water**

### **Our aim**

The landscapes, soils and water systems of the Park are protected and priority eroded and disturbed areas are rehabilitated.

### **Measuring how well we are meeting our aim**

- Extent of areas rehabilitated in accordance with rehabilitation programs, including Gunlom Rehabilitation Plan
- Extent of salt water intrusion into significant freshwater wetlands
- Extent to which potable drinking water at Park facilities is in accordance with Australian Drinking Water Guidelines (2004 and later)
- Extent to which impacts on selected wetland sites from feral animals, visitor use and other factors are within acceptable levels

### **Background**

The land systems and communities in Kakadu include savannas, wetlands, floodplains, monsoon forests, the sandstone plateau and outliers, and tidal, coastal, aquatic and marine habitats (see Figure 4). Savanna is the most extensive habitat type, occupying more than 75 per cent of the Park, while mangroves and monsoon forests are the most fragile and restricted. The variety of landscape types are of such outstanding diversity and value that they are one of the reasons Kakadu was listed as a World Heritage property. Appendix B includes a description of Kakadu's World Heritage values.

The hydrology of the Park is characterised by the drainage systems of several major rivers, the reliable inundation of large areas of floodplain each wet season, wet season runoff carrying huge volumes of water into estuaries, subsequent draining of the floodplains and evaporation from

persistent backswamps during the dry season. Most floodplain areas are under water for up to four months each wet season. As water levels drop, remaining water bodies become important as refuge areas for many animals and plants to survive in the dry season. Along the escarpment some of these water bodies have become popular destinations for visitors.

The condition of landscapes, soil and water is subject to change through natural processes, including tidal influences, flood, fire and wind, as well as through human activities such as introduction of feral animals and weeds, changed fire regimes, construction of roads and gravel pits, mining and extraction of groundwater.

Natural levees on the floodplains reduce the flow of salt water into freshwater areas. Slight changes in sea level, river shape, tidal flow, vegetation cover or landform can result in the entry of salt water into freshwater areas. This is known to change vegetation communities and impact on the availability of important traditional food resources such as magpie geese, barramundi and freshwater turtles. In the past, buffalo and boats have eroded some natural levee banks and salt water has moved in and killed trees. In some places, artificial dams and levees were built to replace and stabilise damaged levees. During the life of the 4th Management Plan, boat access restrictions were put in place to decrease the potential for salt water intrusion into the Yellow Water area.

Parks Australia undertakes regular water quality monitoring at ranger stations and camping areas. During the life of the 4th Plan, eriss undertook research at plunge pools to determine whether pollutants such as sunscreens were adversely affecting water quality. No adverse impacts were noted. In addition, the Jabiru Town Council monitors groundwater quality and consumption within Jabiru (see Section 7.1, Jabiru).

Section 387(1) of the EPBC Act provides that no mining operations be carried out in the Park. This does not prevent the activities listed in s.387(2) of the Act, which include development of Jabiru, transportation of minerals along specified roads and routes and construction of power lines, pipelines and water supplies. Three mining project areas were excluded from the area proclaimed as Kakadu National Park. The Ranger project area is the only one operational. Mining operations at Ranger may conclude during the life of this Plan but processing operations are likely to continue until at least 2014. Energy Resources Australia (ERA), the mine operator, is required by the authorisation for the mine under the Atomic Energy Act 1953 to return the landscapes at the Ranger site to a similar condition to the adjacent areas of Kakadu National Park. This means that rehabilitation works at the Ranger site will be likely to continue for many years after the mine closes.

Previous uranium mining activity in the central and southern regions of the Park has left mine shafts, tailings, old tracks, and radiological contamination in some locations. Some rehabilitation work was undertaken in 1990 and 1994 in the southern part of the Park to close off old mine shafts and adits.

The lease between the Director and the Gunlom Aboriginal Land Trust (1995) requires development of a plan for environmental rehabilitation for Guratba (Coronation Hill) and other old uranium mine sites and associated workings within the Land Trust area. It further requires the Director to use best endeavours to implement the plan by the end of 2015. Some interim remediation work was carried out in 2000.

The Gunlom Rehabilitation Plan has been developed with the traditional owners and other stakeholders and relevant government agencies, including the NLC, the Office of the Supervising Scientist, the Northern Territory Government Department responsible for mining, and the Australian Radiation Protection and Nuclear Safety Agency (a licence is held under the *Australian Radiation Protection and Nuclear Safety Act 1998* in relation to the project). The rehabilitation plan is in two parts, covering sites with no or only minor radiological contamination, and those that have significant/complex radiological contamination.

In 2006 the Australian Government allocated \$7.3 million to implement the Gunlom Rehabilitation Plan and committed to incorporating the 29 mine leases in the Land Trust area into the Park, adding some 466 hectares to the Park. Figure 5 shows the location of areas requiring rehabilitation.

Section 354 of the EPBC Act states that an excavation must not be carried out unless in accordance with a management plan, and Regulation 12.16 of the EPBC Regulations prohibits fossicking, and introduction, disturbance or removal of minerals, clay, sand, stone or other earth materials, unless undertaken in accordance with this Plan or with the approval of the Director.

The Kakadu Land Rehabilitation Strategy was prepared in 1995, and mainly addressed old gravel pits located across the Park. It has not yet been fully implemented.

## **Climate change**

In recent years global warming and its implications for climate change has emerged as a key issue for biodiversity and environmental management on a global scale. In the Arnhem Land–Kakadu region, the predicted effects of climate change as a result of global warming include a rise in temperature, variation in rainfall patterns and amount, rising sea levels and changes in climate variability.

Some of the potential management implications in the Arnhem Land–Kakadu region are:

- Biodiversity: Loss of some critical habitats (including freshwater wetlands), changes in the abundance and distribution of some animal and plant species and an increased risk in the spread of exotic plant and animal species
- Water resources: Potential increases in drought and flood activity, decline in quality of inland and coastal water, and salt water intrusion into surface and groundwater resources
- Extreme weather: Increased frequency of extreme heat days and rainfall events and an increase in the intensity of tropical cyclones
- Fire: Changed fire regimes
- Bininj use of the Park: Possible changes in access to hunting areas and changes in abundance of foods
- Human health: Increase in heat related illness, expansion of increase in number of mosquito-borne viruses and an increase in injuries from extreme weather events
- Buildings and infrastructure: Increased infrastructure maintenance costs and the need to relocate infrastructure from high risk areas.

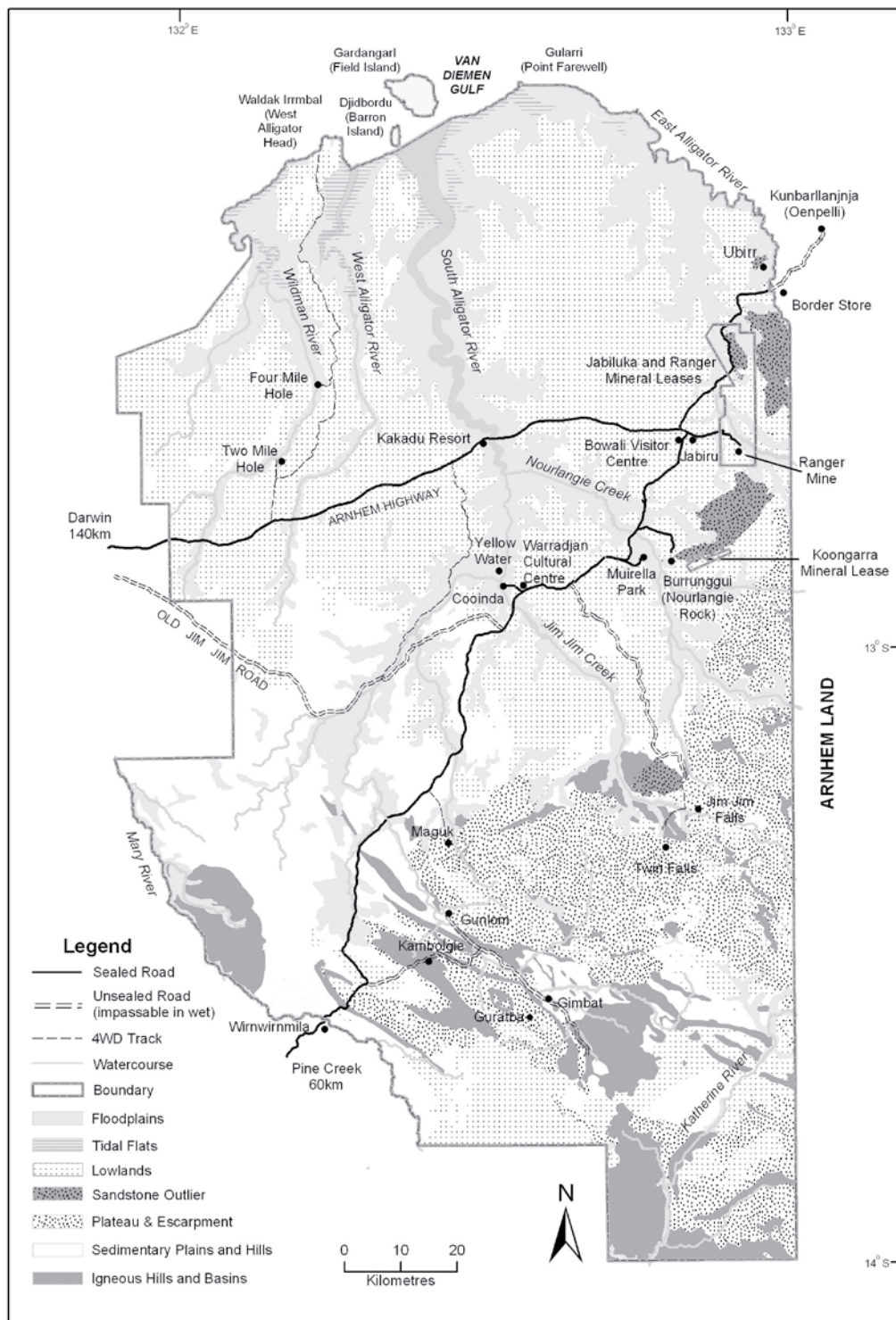
In the life of the 4th Plan a range of landscape and biodiversity monitoring/research programs were conducted including fire plot monitoring and landscape change research. These and other similar programs provide valuable baseline data to detect landscape and biodiversity changes in the Park and may assist to monitor climate change impacts in the future.

In 2006, the Director commissioned a study of the potential implications of climate change for management of Commonwealth reserves, including Kakadu. The results of this investigation will contribute to an improved understanding of and preparedness for changing conditions in Kakadu.

### **Issues**

- A better understanding is needed of the different influences on landscape change in order to make decisions about levels and types of change that are within acceptable limits.
- Global climate change may have a range of impacts on the Park's natural and cultural resources, infrastructure, and tourism value and opportunities. Bininj use of the Park may also be affected. Up-to-date expert information will continue to be needed to assess the impacts and risks of climate change, to identify environmental monitoring indicators and to identify adaptive management measures to mitigate its impacts where possible.
- As many small developments and clearings may, over time, have a large cumulative impact on the structure and function of landscapes, the landscape needs to be considered as a whole when planning and managing local developments and activities or undertaking rehabilitation and protection works.
- To more effectively undertake rehabilitation and protection measures, more needs to be known about how factors such as fire, weeds, feral animal impacts and floods interact in influencing the landscape during the different seasons and how their effects vary across different landscape types and vegetation communities.
- There is a serious shortage of gravel in some areas of the Park.
- Many sites in the Park that have been cleared and disturbed by mining, for roads or, more recently, for gravel pits, have yet to be rehabilitated or revegetated. Gravel pits cause local environmental damage, are costly to rehabilitate and scar the landscape. Erosion at some visitor sites and along roads and tracks requires stabilisation and revegetation. (Road access and management of roads in the Park are covered in Section 6.3 of this Plan.) Unrehabilitated areas of disturbance remain vulnerable to weed establishment.
- There is a potential risk of altering local genetic stock, in addition to introducing pests in soil brought in with plants, if plant material is sourced from outside the Park for revegetation purposes (see Section 5.11 for discussion on introducing vegetation).
- Some groundwater resources are unsuitable or of limited use for people due to naturally occurring contaminants including uranium, arsenic and high salt levels. The availability of suitable potable water supplies is an issue at some ranger stations and campgrounds. Groundwater could become contaminated over time due to leaching from rubbish dumps and from pit, composting and septic toilets if these are not properly managed (see Section 8.7, Resource use in Park operations). Groundwater can be depleted through heavy use, causing localised impacts on wildlife populations.

Figure 4 – Landforms of Kakadu





## **What we are going to do**

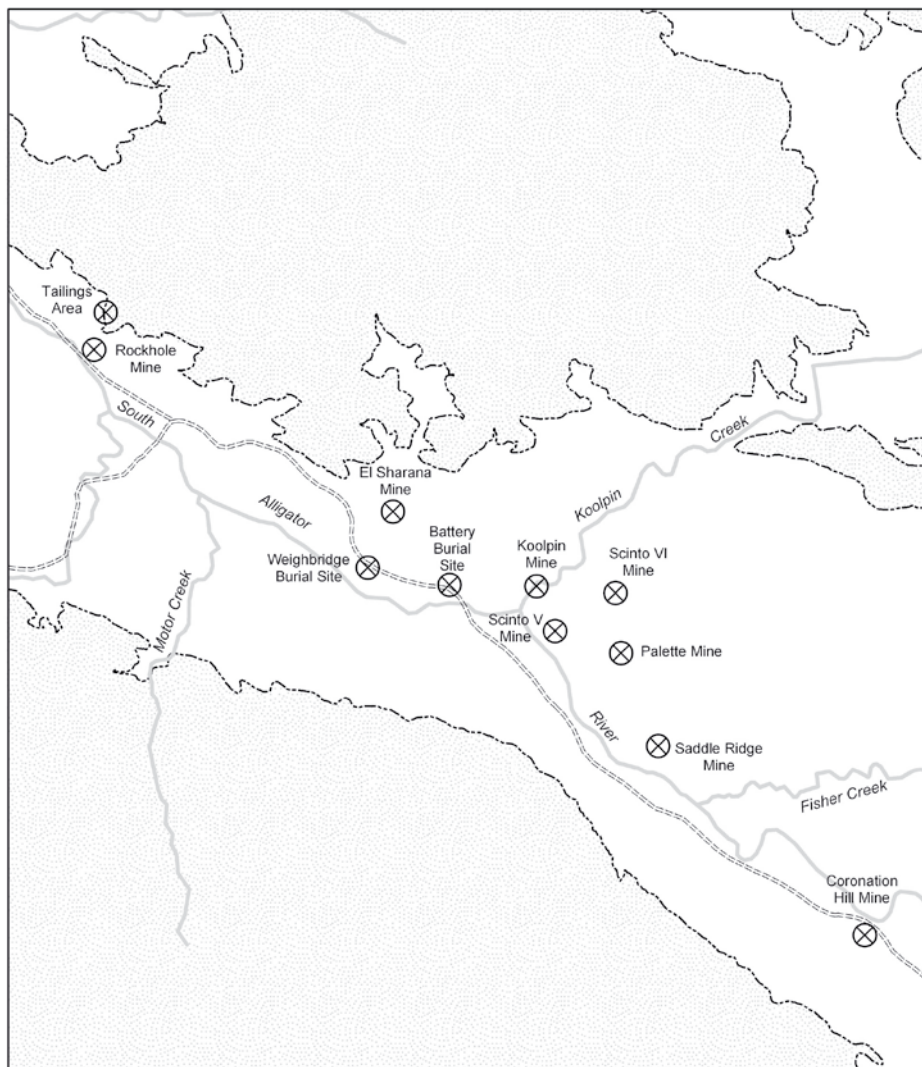
### ***Policies***

- 5.6.1 If parts of the landscape are changing in ways that are of concern, the Director and Bininj, in consultation with relevant stakeholders, will jointly decide on further monitoring requirements, and whether protective, rehabilitation or adaptation measures are feasible. If cost effective, appropriate actions will be implemented.
- 5.6.2 Bininj involvement in rehabilitation work, including preference for Bininj organisations in contractual arrangements, will be encouraged and facilitated.
- 5.6.3 Collecting rock and soil samples may be permitted for scientific research only, subject to the conditions specified in Section 8.6 of this Plan and provided that the research is not for the purpose of mining operations in the Park.
- 5.6.4 Excavation of sand and gravel from within the Park will be allowed for Park management purposes, including mine rehabilitation in the Gunlom Land Trust area.
- 5.6.5 Rock, soil, sand, mulch or other similar materials may be brought into, or transported through, the Park in accordance with a permit issued by the Director. Import of sterilised potting mix for non-commercial purposes will not require a permit, and import for commercial purposes may occur with the approval of the Park Manager.
- 5.6.6 Plants or seeds may be brought into the Park, for revegetation or other purposes, if required to maintain genetic viability or if there is no suitable stock within the Park, in accordance with a permit issued by the Director (see also Section 5.8, Native plants and animals).
- 5.6.7 Plants and seeds for rehabilitation programs and for the use of residents of Jabiru and lease areas should be locally sourced where possible.
- 5.6.8 When and if required, the Director may commission the development of new bore sites to address water quality issues.
- 5.6.9 The Director will work closely with the Supervising Scientist and ERA to ensure the Board has access to advice about management of mining operations, in particular in relation to those activities that may potentially impact on Park values or the health of residents.
- 5.6.10 An integrated approach will be taken in handling landscape management issues, such as fire, ferals and weeds in the various habitats in Kakadu (see also Section 7.2, Neighbours, stakeholders and partnerships).

### ***Actions***

- 5.6.11 Obtain expert engineering and environmental advice on measures needed to protect significant freshwater habitats from salt water intrusion. Work with Bininj and stakeholders to make decisions about the need for intervention and the choice of available options.
- 5.6.12 Identify priorities for further research or integrated monitoring programs to study the causes and effects of landscape change, how these processes interact and how effects vary across different landscape types and vegetation communities. Use this information to refine decisions about acceptable change (see Section 8.6, Research and monitoring).

Figure 5 – Mine rehabilitation sites

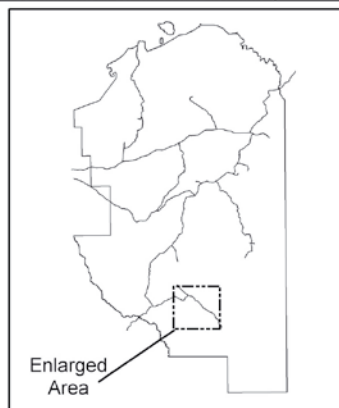


## Kakadu National Park

### Rehabilitation Sites

#### Legend

-  Rehabilitation site
-  Unsealed Road (impassable in wet)
-  Watercourse
-  Plateau & Escarpment
-  Sedimentary Plains and Hills



- 5.6.13 Work with relevant experts and stakeholders to investigate climate change impacts and consider, and where possible implement, appropriate actions and responses.
- 5.6.14 Consult Bininj regarding rehabilitation priorities for gravel pits and other sites identified in the Kakadu National Park Land Rehabilitation Strategy (Murray 1995) and undertake works on priority areas. Priorities will be set considering EPBC Act listed plants and animals or significant communities (such as monsoon forest), or areas that are subject to active rapid erosion. Update the strategy at least once during the life of the Plan.
- 5.6.15 Establish and implement a program of testing and monitoring potable water supplies for Park facilities (staff and visitor), in accordance with the Australian Drinking Water Guidelines (2004 and later).
- 5.6.16 The Director will take all reasonable steps to complete and implement the Gunlom Rehabilitation Plan.

## 5.7 Fire

### Our aim

Through working with Bininj in the active management and use of fire the natural and cultural values of the Park are maintained, and life and property are protected.

### Measuring how well we are meeting our aim

- Level of Bininj satisfaction with how well country is being looked after through management of fire, and how much involvement Bininj have in fire management programs
- Trends in species diversity and abundance of important or indicator species at fire monitoring plots
- Proportion of Park area affected by unplanned or adverse fires
- Number and type of incidents associated with the loss of life or property due to fire

### Background

Fire is one of the major forces that influence the highly fire prone environments of northern Australia and is considered to be one of the few tools that managers possess to actively influence the dynamics of savanna landscapes (Edwards et al. 2003).

Bininj have always used, and continue to use, fire as an important tool for managing and expressing ownership of country. Fire was used to make it easier to travel, for communication, for defence and to clear an area of pests (Braithwaite and Roberts 1995). Fire is also used when hunting to enable Bininj to see and flush out animals. Fire and smoke are important in rituals and purification ceremonies.

The traditional fire regime practised by Bininj created a mosaic of unburnt, early and late burnt patches that is important for maintaining species and habitat diversity (Russell-Smith 1995). However, subsequent Balanda occupation of the land resulted in a reduction and redistribution in the Bininj population, causing the traditional ways of burning country to be severely disrupted. With the arrival of pastoralism, fires tended to be lit mainly in areas favoured by grazing water

buffalo such as the floodplains and adjacent lowlands. The introduction of exotic pasture grasses (such as gamba and mission grass) and the removal of water buffalo in the 1980s also caused changes to the intensity and frequency of fires, particularly within wetland areas and woodland margins. Due to these changes, the fine mosaic of burnt and unburnt patches that had previously protected country from damaging late season fires, and that provided optimum conditions for maintaining species abundance and diversity, was lost. As a result, extensive fires in the late dry season became more common.

The ongoing, active management of the landscape by Aboriginal people through the use of fire, including fire-assisted hunting and the creation of environmental mosaics, provides an important example of people's interaction with the environment. This is one of the values for which Kakadu is inscribed on the World Heritage List (see Appendix B, World Heritage attributes of Kakadu National Park). A number of specific clan-based projects have been established with Parks Australia support, with the aims of maintaining customary Aboriginal burning practices and actively managing certain habitat types and particular areas, engaging young people in 'caring for country', and sharing traditional and scientific knowledge of country.

Since the proclamation of the Park, fire management has tried to mimic traditional burning practices to look after country and to protect people and Park assets. This approach includes creating a mosaic of burnt and unburnt country, reducing the amount of grass fuel early in the dry season to help stop late dry season fires covering large areas, and ensuring that communities and assets vulnerable to fire are protected.

While savanna burning is the highest contributor of greenhouse gas emissions in the Northern Territory, the Park's approach to fire management may help reduce greenhouse gas emissions. Scientific evidence indicates that greenhouse gas emissions from low intensity fires that typically occur in the Park during the relatively benign early dry season are substantially less than emissions from intense fires more typical of late dry season fires.

In some areas of the Park, wet season burning has also been used as a tool to reduce the amount of sorghum fuel loads. Staff consult Bininj each year about burning regimes for different parts of the Park.

Since 1980, the fire history of the Park has been well documented by the Northern Territory Bushfires Council through the maintenance of a GIS that is based on the interpretation of satellite imagery. The location and numbers of the different types of plants and animals at permanent fire monitoring plots are also routinely recorded. Plots have been established in a range of vegetation and community types within the Park. Since the 1980s substantial improvements in landscape heterogeneity have been documented as a result of fire management programs.

*The Bushfires Act* (NT) applies to Kakadu in so far as it is not inconsistent with the EPBC Act, this Plan, or the EPBC Regulations.

Fire management for life and property protection is mostly confined to smaller areas adjacent to settlements and other infrastructure and does not necessarily conflict with use of different fire regimes to maintain biological values.

## Issues

- It is important to Bininj that they are involved in the development of fire management programs to ensure that their views regarding how country should be burnt are incorporated. It is also important for Bininj to be actively involved in implementing and reviewing the outcomes of fire management programs.
- Aboriginal sites of significance and historic sites need to be appropriately protected from fire.
- Some plant and animal communities depend on fire for maintenance of optimum habitat conditions.
- Some communities and plant species are recognised as being particularly vulnerable to frequent, intense fires. These include all rainforest communities, slow growing heath communities of the sandstone plateau and escarpment, cypress pine thickets, bamboo thickets, and mature floodplain paperbark forests.
- The introduction of some exotic pasture grasses such as gamba grass, mission grass, olive hymenachne and para grass has resulted in changes to fire regimes within some areas of the Park. Better understanding is required of the effects of weeds on fire regimes and the effects of fire on weed distribution and abundance.
- Unplanned large late season fires continue to be an issue in some areas of the Park, in particular within the sandstone country where fires enter the Park from the western rim of the Arnhem Plateau. It is important that the boundary areas of the Park are well managed to reduce the risk of unplanned fires entering or spreading from the Park.
- Better understanding is required of the role and acceptability of wet season burning as a tool for reducing native sorghum abundance and promoting development of other understorey communities.
- Fire management must be considered in a wider regional context, and close liaison with neighbours and regional organisations is essential.
- Research and long-term monitoring programs are essential to assess how effective fire management programs are in terms of meeting their objectives.
- Tour operators and visitors need to understand the use of fire as a land management tool and the wise use of fire at campgrounds.

## What we are going to do

### *Policies*

- 5.7.1 Traditional burning practices will be recognised, and where possible incorporated, in the fire management programs for the Park.
- 5.7.2 Fire management will be carried out in accordance with long-term strategies prepared for each district or identified area. These strategies will reflect the decisions made on a clan area basis by Bininj. Strategies will:
- include desired cultural and biodiversity aims and outcomes identified by Bininj and Park staff

- set targets for the extent and timing of burning that should be undertaken within different vegetation communities. This is especially important for vegetation communities that are sensitive to frequent, intense fires and those sensitive to any fire
  - aim to minimise occurrence of unplanned fires, especially intense and large late dry season fires in habitat types that are sensitive to such fires
  - incorporate customary ways of burning country
  - include emergency response and fire protection plans for all Park assets
  - consider the ecological values of areas surrounding assets and recommend alternative actions to burning where required
  - be consistent with this Management Plan
  - be subject to regular review in cooperation with Bininj.
- 5.7.3 Annual burning programs will be implemented to give effect to the district fire plans. Park staff and Bininj will regularly review annual fire plans.
- 5.7.4 Park staff may assist neighbours with hazard reduction and prescribed ecological burning on lands adjacent to Kakadu, and will cooperate in relevant regional forums.
- 5.7.5 Representation of nominated traditional owners on the West Arnhem Bushfire Committee will continue.
- 5.7.6 Fire management will be carried out in a manner consistent with the *Bushfires Act* (NT) so far as practicable. Permits may be applied for under the *Bushfires Act* to carry out fire management works.

### **Actions**

- 5.7.7 Prepare and maintain fire management strategies and annual burning plans for all districts, in accordance with Policy 5.7.1.
- 5.7.8 Consistently document fire ignition points, weather conditions and outcomes.
- 5.7.9 Liaise with the Bushfires Council and with adjoining landholders who may be affected by particular fire management operations.
- 5.7.10 Monitor fire and its effects (see Section 8.6, Research and monitoring). Review results of monitoring programs at least annually and incorporate any lessons learnt in subsequent burning programs.
- 5.7.11 Improve understanding of the effects of weeds on fire regimes and the effects of fire on weed distribution through monitoring and research (see Section 8.6, Research and monitoring).
- 5.7.12 Ensure Park staff are appropriately trained in the use of equipment, incendiaries and GIS, database management, monitoring techniques and OHS requirements relevant to fire.
- 5.7.13 Provide interpretive materials to tour operators and visitors on fire management programs and the wise use of fire at campgrounds.

5.7.14 Provide resources and support to engage Bininj in all aspects of fire management including customary fire management programs.

## 5.8 Native plants and animals

### **Our aim**

Through working with Bininj, ecological processes are maintained to ensure the viability of populations of native plants and animals currently occurring in Kakadu.

### **Measuring how well we are meeting our aim**

- Extent to which distribution and abundance of selected plants and animals are at acceptable levels
- Extent to which priorities in EPBC Act threat abatement and recovery plans are implemented
- Extent to which species important to Bininj's customary economy, ceremonial responsibilities and land management practices are available and accessible

### **Background**

Bininj have been using and managing the land for thousands of generations, contributing to the structure and composition of plant and animal communities seen in Kakadu today. The arrival of Balanda caused dramatic changes to country within a relatively short period. Altered fire regimes and the spread of weeds and feral animals have influenced the composition of native plant and animal communities in the Park.

Under Aboriginal cultural tradition, plants and animals have a totemic role, linking clans and individuals with their estates and giving rights and responsibilities concerning particular country and its totemic figure. Rights in relation to plants and animals cover their roles as a food or other material resource and images of them are often depicted in rock art located throughout Kakadu.

Historically, Bininj have used, and continue to use, plants for bush tucker and medicines, and to make a variety of tools and implements. Bininj also hunt animals according to the seasons, and the movement of people around their clan estates has always been determined by the condition of the wildlife. Some of the native animals most often hunted by Bininj include magpie geese, turtles, wallabies, fish, file snakes and goannas.

The many different types and numbers of native plants and animals in Kakadu is of national and international significance and is recognised in the Park's World Heritage listing. Significant plant and animal species include those listed as threatened under the EPBC Act, and many of these are restricted to certain habitat types. A substantial number of animal species are listed as either marine or migratory under the EPBC Act and are also subject to the provisions of international agreements and treaties (such as Ramsar, JAMBA and CAMBA). Significant species, as at 2006, are listed in Appendices D and E. Many other species may also be considered management priorities because of their restricted distribution, population size, susceptibility to certain threats, or cultural significance.

All major Top End habitats are represented within the Park. These include mangrove and samphire communities, lowland and escarpment rainforest, eucalyptus open forests and woodlands,

melaleuca forests, and seasonal floodplains (Russell-Smith 1995). Nearly 1600 species of plants have been recorded within the Park, many of which are only found within the Alligator Rivers Region.

Conserving the distribution, abundance and diversity of native plants and animals and communities is a fundamental objective of Kakadu National Park management. For the most effective approach to management of native plant and animal populations, land management programs must integrate fire, weed, feral animal and visitor management considerations. Current management programs designed to assist in the conservation of native plants and animals in Kakadu include:

- dedicated research projects to monitor plant and animal distribution and abundance and long-term changes in communities
- fire management including undertaking controlled burns, and monitoring and mapping fire impacts
- controlling weeds and feral animals
- compliance and enforcement effort to try to minimise the illegal take of animals, especially in relation to illegal commercial fishing and hunting activities
- minimising habitat clearing
- cooperating with Northern Territory and other agencies when undertaking research and monitoring programs.

Under s.354 of the EPBC Act, a person may not kill, injure, take, trade, keep or move a member of a native species except in accordance with a management plan. The EPBC Regulations also prohibit taking animals and plants into the Park, and cultivating plants in the Park, except with the approval of the Director.

### **Issues**

- It is important that Bininj knowledge of native plant and animal communities is recognised, maintained and used in the management of plants and animals in the Park.
- There is evidence of decline in the abundance of some native plants and animals in Kakadu, and causes of these changes are often unclear.
- There is a need for updated information to guide management actions to address the potential threats to the range and numbers of native plant and animal species in the Park (see also Section 8.6, Research and monitoring).
- Feral pigs, cats and cane toads have been formally recognised as threatening processes under the EPBC Act. All are present in the Park, creating particular management obligations.
- For many plants and animals there is not a clear understanding of the relationships between fire regimes and the changes in their range and numbers.
- Some plants and communities, such as Callitris communities, slow-growing heath in escarpment areas, bamboo thickets and monsoon forests, are sensitive to frequent or intense fires. There is evidence that the distribution of these communities has declined in some locations within Kakadu (see Section 5.7 of this Plan in relation to fire management).



- There is a need for regular monitoring to identify trends in the range and numbers of all EPBC Act and Northern Territory listed threatened plants and animals.
- Plant communities have not yet been mapped in sufficient detail for the whole Park. In particular, there is a need to map sandstone communities due to the high number of endemic or rare species present and fire sensitivity of some species.
- There are hazards associated with people undertaking recreational activities in and near waterways within the Park, particularly in relation to interaction with crocodiles. Due to increased population densities and prevalence of larger crocodiles, there is a greater risk of crocodile attack than in the past.
- In addition to crocodiles, other animals such as snakes, scorpions, stonefish and box jellyfish pose hazards to visitors.

## **What we are going to do**

### ***Policies***

- 5.8.1 Bininj will continue to exercise their traditional and legal rights to fish and hunt native animals and gather plants and plant material within the Park (see also Section 4.3, Customary use of resources).
- 5.8.2 Bininj and Balanda knowledge of and priorities related to the management of native plants and animals and their habitats will be incorporated into management programs.
- 5.8.3 The Director will encourage and support Bininj to:
  - be involved in research and surveys of native plants and animals
  - carry out land management work eg fire, weed and feral animal management, and record their knowledge of native plants and animals and their habitats.
- 5.8.4 Data on the location of EPBC Act and Northern Territory listed plant and animal species and other species of conservation or cultural significance will be maintained and management programs and activities will ensure that they are protected from inappropriate disturbance.
- 5.8.5 Monitoring programs will be directed at indicator species identified in regard to major threats and management issues such as fire, weeds and feral animals (see Section 8.6, Research and monitoring).
- 5.8.6 The Director will support research and monitoring programs for EPBC Act and Northern Territory listed plants and animals, and others of conservation or cultural significance.
- 5.8.7 Crocodiles will be managed in accordance with the Park's Crocodile Management Policy to protect the natural abundance of crocodile populations and minimise the risks of crocodiles to people who visit and live in Kakadu through the following measures:
  - educating and warning visitors, residents and tour operators about crocodiles
  - maintaining data on crocodile numbers, size and behaviour, particularly in waterways frequented by Park residents and visitors

- assessing risks posed by crocodiles to people
  - endeavouring to detect and remove all estuarine crocodiles from any location where swimming is to be allowed
  - managing individual crocodiles in other locations that present a higher than usual risk to people
  - closing water bodies temporarily, seasonally or permanently if crocodiles present a high risk to visitors
  - ensuring that any take of crocodiles and eggs is undertaken legally (see Section 5.10, Commercial use of native wildlife)
  - ensuring that all staff involved in crocodile management are appropriately trained and experienced to carry out crocodile management activities.
- 5.8.8 Native animals and plants may be brought into the Park in accordance with a permit issued by the Director and where it is consistent with policies and actions in this Plan. Plants may be brought into leasehold areas and other occupancies in the Park with the Director's approval.
- 5.8.9 The Director may take actions concerning native species that are otherwise prohibited by the EPBC Act where they are necessary to implement this Plan, or where they are otherwise necessary for preserving or protecting the Park, protecting or conserving biodiversity, or protecting persons or property in the Park.
- 5.8.10 The Director will cooperate with Northern Territory management agencies in the protection of native plants and animals within the Kakadu region.
- 5.8.11 As appropriate, Park staff will continue to provide plant specimens from the Kakadu area to the Northern Territory Herbarium.
- 5.8.12 To minimise the risk of introducing diseases into the Park, people will not be allowed to take injured or orphaned animals out of the Park and then bring them back in except with the Director's approval.

### **Actions**

- 5.8.13 Commence 1:25 000 mapping of vegetation communities across the Park. Give priority to sandstone communities.
- 5.8.14 Continue photo monitoring and surveys of plants and communities at reference sites across Kakadu commenced in 1994.
- 5.8.15 Implement relevant actions from species threat abatement and recovery plans.
- 5.8.16 Update the Park's database of EPBC Act listed species and species of conservation or cultural significance at least once every three years.
- 5.8.17 Implement the Park's Crocodile Management Policy, as updated from time to time, in consultation with Bininj.

- 5.8.18 Provide information to visitors about potentially dangerous animals in Kakadu, and ways to minimise risk.
- 5.8.19 Provide training to Park staff or authorised volunteers in techniques for capture, handling and rehabilitation of injured native animals.
- 5.8.20 Continue specific research into the longer-term impacts of the cane toad and potential natural recovery of animal populations such as the northern quoll and goannas.

## 5.9 Bioprospecting (access to biological resources)

### Our aim

Access is provided to biological resources while ensuring Park values and the interests of the Director and Bininj are protected.

### Measuring how well we are meeting our aim

- Extent to which Bininj are satisfied with benefit-sharing arrangements entered into for commercial access to biological resources

### Background

Access to biological resources (also known as bioprospecting) is the taking of biological resources of native species for research and development on any genetic resources, or biochemical compounds, comprising or contained in the biological resources.

Access to biological resources in Commonwealth areas, such as Kakadu, is regulated under the EPBC Act. Section 301 of the Act authorises Regulations to be made to control the activity. 'Biological resources' are defined by the Act (s.528) as including genetic resources, organisms, parts of organisms, populations and any other biotic component of an ecosystem with actual or potential use or value for humanity. 'Genetic resources' are defined as any material of plant, animal, microbial or other origin that contains functional units of heredity and that has actual or potential value for humanity.

Part 8A of the EPBC Regulations is made under s.301 to regulate access to biological resources. Key features of Part 8A in relation to Kakadu are as follows:

- Any person who wants to access biological resources must obtain a permit from the Minister for the Environment and Water Resources.
- The 'access provider' must agree to the taking of biological resources. The access provider for Aboriginal land in Kakadu is the relevant Land Trust, and for non-Aboriginal land it is the Director.
- Where access is sought for commercial purposes or potential commercial purposes:
  - there must be a benefit-sharing agreement with the relevant access provider
  - the benefit-sharing agreement must provide for reasonable benefit-sharing arrangements, including protection for, recognition of, and valuing of any Indigenous people's knowledge that is to be used

- where access is sought to Aboriginal land in the Park the relevant Land Trust must give ‘informed consent’ to the benefit-sharing agreement, after the traditional owners of the land have been consulted and the views of the NLC obtained.
- Where access is sought for non-commercial purposes:
  - written permission must be obtained from the relevant access provider
  - a statutory declaration must be given to the access provider declaring, among other things, that any biological resources taken are not intended to be used for commercial purposes, that a written report will be given to the access provider on the results of any research into the biological resources, that samples will not be given to other people (other than a specified research institution) without permission of the access provider, and that the person(s) given access will not carry out, or allow others to carry out, commercial research or development unless a benefit-sharing agreement is in place with the access provider.
- There must be an assessment of the environmental impact of the proposed access if it is likely to have more than negligible environmental impact.

Access to biological resources is also covered by s.354(1)(a) of the EPBC Act (if the resources are members of a native species), s.354(1)(f) (if access is for commercial purposes), and r.12.10 of the EPBC Regulations (if access is for scientific research).

### **Issues**

- There is a need to facilitate appropriate access to biological resources, and avoid duplication of processes.
- Relevant Bininj should benefit appropriately from access to bioprospecting activities in accordance with the EPBC Regulations.

### **What we are going to do**

#### ***Policies***

- 5.9.1 Access may be provided to biological resources in accordance with Part 8A of the EPBC Regulations.
- 5.9.2 Where access to Aboriginal land is proposed, written agreement from the Director is required in addition to a permit under Part 8A of the Regulations.
- 5.9.3 Where access to non-Aboriginal land is proposed, the Director will not enter into a benefit-sharing agreement for commercial access under Part 8A of the Regulations, or give permission for non-commercial access under Part 8A, unless Bininj have been consulted and agreed to the proposed access, and the views of the NLC have been obtained and considered.

## **5.10 Commercial use of native wildlife**

### **Our aim**

Economic benefit is gained by Bininj through the sustainable commercial use of native plants and animals for saleable art and craft, for bush tucker tours and other purposes in a manner consistent with Aboriginal cultural practices, World Heritage values, the Park leases and the IUCN management principles.

## Measuring how well we are meeting our aim

- Extent to which impacts on target species are within acceptable levels
- Extent to which wildlife based enterprises provide significant economic benefits to Bininj and make significant contributions to maintenance of the cultural values of the Park

## Background

The knowledge, use and management of plant and animal wildlife are central to Bininj culture. Hunting and gathering enables Bininj to be out on country and to maintain customary traditions. Bininj have been collecting small amounts of native wildlife for commercial return for many years. Various forms of artwork such as paintings, didgeridoos and weavings have been made from plant materials and the production of artwork has become an important industry for Aboriginal people in the Kakadu region.

Kakadu National Park includes the estate and the resource base of a number of Aboriginal clan groups and families and the Park is a major contributor to their economic future. The ability for traditional owners to derive benefit from enterprises established in the Park is recognised in the IUCN management principles for the Park (see Section 3, IUCN category).

Bininj, as well as Balanda from outside the Park, have shown interest in other types of commercial use of wildlife. Proposals have included harvesting bush tucker for sale, harvesting crocodile eggs for sale to crocodile farms and capturing live fish for sale to aquariums and pet shops.

There is a large set of Aboriginal cultural practices related to the management and use of wildlife. These determine who should be asked for permission to take plants and animals in each area and include rules about how much can be taken and at what times of year.

The Board of Management, while actively supporting Bininj in being able to benefit economically from Kakadu, has emphasised that protection and appropriate presentation of the natural and cultural values of Kakadu National Park in accordance with the IUCN protected area category 'national park' is paramount, and that all commercial activities would be considered within this context.

Under s.354(1) of the EPBC Act commercial taking or harvesting of wildlife may only be carried on in accordance with this Plan. The taking of wildlife protected by Part 13 of the Act must also be in accordance with applicable provisions of Part 13. Activities that are 'access to biological resources' are subject to Part 8A of the EPBC Regulations, unless this Plan provides otherwise.

## Issues

- Being involved in businesses based on commercial use of wildlife may help Bininj to protect and maintain culture by being out on country and maintaining cultural knowledge about the types, ecology and customary use of native plants and animals.
- To ensure that Bininj gain social and economic benefits from current and proposed commercial use, it is important that Bininj carry out these activities independently or through business arrangements from which they are the primary beneficiaries.

- In addition to meeting strict requirements for sustainability and compatibility with the natural values for which the Park was declared, commercial use of any plant or animal must not impact on local customary or subsistence wildlife use.

## **What we are going to do**

### ***Policies***

- 5.10.1 Proposals to take or harvest native wildlife that involve access to biological resources within the meaning of Part 8A of the EPBC Regulations will be managed in accordance with Section 5.9 of this Plan. All other proposals for the commercial take or harvest of native wildlife will be managed in accordance with the following policies and actions.
- 5.10.2 Proposals for commercial take or harvest of native wildlife will only be considered if they satisfy the following criteria:
- (a) The proposal will not adversely affect the conservation status of the species of wildlife or a population of that species.
  - (b) The proposal must be consistent with Bininj cultural practices, including:
    - rules for looking after country properly, making sure the harvest is sustainable, and making sure that people are safe
    - avoiding adverse impacts on use of wildlife by Bininj for food, ceremonial and religious purposes.
  - (c) The proposal must be agreed to by senior traditional owners. In accordance with Aboriginal cultural practices, senior traditional owners may specify that agreement is also required from other Bininj with specific responsibilities for the animals, plants or sites that would be affected.
  - (d) The proposed activities must be carried out by Bininj or Bininj organisations:
    - acting alone
 or
    - in partnership with other people under a contract that includes provisions setting the respective roles and responsibilities of the partners and provides for reasonable benefit sharing.
  - (e) The proposed activities must be approved by the Board, or be in a class of activities approved by the Board (see Policy 5.10.3).
- 5.10.3 Proposals for commercial use of native wildlife will be considered under one of two categories.
- Category A: Small-scale activities or classes of activities. At the commencement of this Plan, these activities are:
- small amounts of pandanus eg for basket making

- small amounts of wood and plant materials for making artefacts
- bush tucker collection for interpretation activities
- other similar activities or classes of similar activities determined by the Board.

The Board may amend the list of Category A activities from time to time by amending or deleting activities or classes of activities. Category A activities may be carried on in accordance with harvest levels and conditions determined by the Board and will not require a permit from the Director.

Category B: Any other activities or classes of activities which may only be carried on in accordance with a permit issued by the Director, subject to Board approval.

5.10.4 In addition to requirements set out in Policies 5.10.1 and 5.10.2, in considering harvest levels and conditions for Category A activities and proposals for Category B activities the Board will consider:

- consistency of the activity with World Heritage values and management principles (Appendix B and Appendix G)
- consistency of the activity with IUCN management principles for the category national park (Section 3)
- consistency of the activity with principles of ecologically sustainable use (Appendix G)
- likely impacts on species protected under the EPBC Act or Northern Territory laws
- harvest methods, location, extent, timing and frequency of the activity
- end use of the resource and consistency of presentation of Kakadu National Park as Aboriginal land and a national park of World Heritage status
- visitor and other safety issues
- the extent to which the activity will provide benefits to Bininj
- the costs to the Director of managing and monitoring the activity.

5.10.5 In addition to Policy 5.10.4, before making a decision in relation to Category B proposals the Board will require:

- the proponent to prepare an environmental impact assessment
- the proposal to be made available for public comment.

The Board may also require:

- the proponent to prepare a wildlife management plan
- the proponent to seek approval from an independent animal ethics committee.

### **Action**

5.10.6 The Board will determine harvest levels and conditions for Category A activities, and may review these from time to time.

## 5.11 Weeds and introduced plants

### Our aim

Through working with Bininj, Park values are protected by strategic management of weeds, prevention of invasion of new species, and increased understanding of weed management issues among Park residents, neighbours and visitors.

### Measuring how well we are meeting our aim

- Coverage and spread of weeds of significance that threaten Park values
- Level of Bininj satisfaction with how well country is being looked after through management of weeds and how much involvement Bininj have in weed programs
- Number, identity and coverage of any new weed species, particularly species likely to impact significantly on Park ecosystems

### Background

Weeds are one of the most significant threats to all habitats within the Park. At the time of writing this Plan, 78 weed species are known to occur in the Park. Many of these were introduced during the pastoral era while, more recently, others were introduced both intentionally and accidentally into lease areas within the Park. Some species, such as olive hymenachne, mimosa and salvinia, are listed on the Australian Government list of Weeds of National Significance.

Weeds compete with native plants and may change the structure of the different vegetation communities and decrease the amount of food resources and habitat available for animals. Some highly invasive weed species, such as mission grass and gamba grass, cause dramatic increases in the intensity of fires. Mission grass has emerged as a major weed management issue within the north-east and central parts of the Park. Weeds also directly affect how Bininj are able to access and collect various food resources, as some food resources are displaced or a physical barrier is created making it hard for Bininj to hunt and gather. Access to some visitor areas may also be restricted due to the presence of highly invasive weeds such as salvinia.

Significant resources have been committed to priority weed management programs. District staff undertake weed control programs each wet season in accordance with district weed management strategies, and provide support to outstation residents and neighbours in weed control activities. During the life of the previous (4th) Plan, a team of staff was employed to control grassy weeds such as mission grass, gamba grass and olive hymenachne. Biological control techniques have been used to help control weeds such as salvinia and sida species. All known infestations of mimosa are being managed through regular monitoring and control activities and are considered to be under control. Research undertaken into ecology and management of several important weed species has improved methods of control.

Park staff have good relations with neighbours and work together on weed management issues. For example, ERA commits significant resources to the management of weeds on its leases and ERA and Park staff exchange information about weed issues. In addition, the Northern Territory Government has indicated that it would like to continue to enhance existing liaison in regard to weed management on the road network it manages in the Park.



The EPBC Regulations prohibit bringing plants into the Park, or cultivating plants, except in accordance with this Plan, or a permit from the Director. Jabiru residents may bring in and cultivate plants if they are on a list provided by the Director.

The Weeds Management Act 2001 (NT) applies to the Park in so far as it is not inconsistent with the EPBC Act, this Plan or the EPBC Regulations.

### **Issues**

- Bininj would like to be actively involved in planning, undertaking and reviewing the outcomes of weed management programs to enable them to fulfil customary obligations of caring for country. As they visit some areas of the Park more frequently than Balanda, some Bininj are also able to assist with the early detection of new infestations.
- Priorities for control need to be established and the effectiveness of weed management programs should be reviewed regularly. Comprehensive weed surveys and data recording activities are required to assist with the identification and prioritisation of weed control efforts.
- There is a high potential for weeds to enter Kakadu from Arnhem Land and adjoining pastoral properties on the western boundary. New species, such as Aleman grass, olive hymenachne, and knobweed have recently been found in the Park. Weeds also have the potential to be carried into the Park on vehicles.
- There are significant weed infestations in Jabiru and other lease areas that could pose a major threat to the rest of the Park if they are not effectively managed.
- Regional weed management strategies that consider the location and potential transport of weeds within catchments are required. The risks associated with the spread of weeds from Kakadu to other areas also need to be carefully managed. Plants brought into leasehold areas also have the potential to impact on the Park.
- Use of chemical herbicides may have an impact on plants that Bininj collect for food (such as yams and waterlilies) and there may be potential impacts associated with residual chemicals.
- Proposals for developments both within the Park, such as new infrastructure, and outside the Park, such as pastoral developments, may pose significant risks for introduction of weeds (see Section 8.3, Assessment of proposals).
- Park staff and community members involved in weed management programs should be trained appropriately to enable them to safely and effectively manage and take part in weed management programs.
- Research into the ecology and methods of dispersal of individual species will help improve the efficiency of weed control programs. To date the impacts of feral animals on weed distribution and abundance are largely unquantified (see Section 8.6, Research and monitoring).
- Levels of awareness within the general community regarding the importance of weed management issues need to be improved to minimise the risk of accidental spread of weeds.

## **What we are going to do**

### ***Policies***

- 5.11.1 Weed management programs will be developed, prioritised, reviewed and implemented jointly with Bininj using best weed management practices.
- 5.11.2 The Director will observe the *Weeds Management Act 2001* (NT) where appropriate and where it is not inconsistent with this Plan.
- 5.11.3 Cooperative research programs with relevant research institutions will be supported to undertake research into weed ecology, dispersal, and control options (see Section 8.6, Research and monitoring).
- 5.11.4 Weed management within catchments will be a key consideration during the development of weed management programs. Close liaison will be maintained with neighbours and other government agencies, and assistance with training, cooperative surveys, and control programs will be provided when possible.
- 5.11.5 Biological and manual weed control methods will be preferred. Chemical control will only be used when the ecological and economic benefits outweigh any potential negative ecological impacts.
- 5.11.6 Development and implementation of weed prevention and management measures will be required for development proposals within the Park. Requirements will be specified in contracts and their implementation will be monitored (see also Section 8.3, Assessment of proposals).
- 5.11.7 The Director will encourage the development of a nursery in Jabiru; if a nursery is established the Director will consider whether other plants should be allowed to be introduced into the Park, and may vary or revoke the Approved Plants List (see also Section 5.6, Landscapes, soils and water and Section 7.1, Jabiru).
- 5.11.8 Park staff will maintain awareness of and consistency with national and regional weed management plans. This will include seeking representation on groups involved with regional weed management issues where possible.
- 5.11.9 Access to areas in the Park may be subject to review to help ensure values of an area are protected, or if the threat from weeds is reduced.
- 5.11.10 Plants may be brought into the Park in accordance with a permit issued by the Director. Plants may be brought into leasehold areas and other occupancies in the Park with the approval of the Director.

### ***Actions***

- 5.11.11 Develop and implement weed management programs and strategies for high priority and sleeper weed species. These include species on the Australian Government list of Weeds of National Significance (such as mimosa, salvinia, and olive hymenachne), highly invasive grassy weeds, and others listed in district weed control plans.
- 5.11.12 Review and update as required district weed control plans in consultation with Bininj.

- 5.11.13 Continue to map the distribution of weeds in the Park and prepare weed risk assessments using GIS. As a priority, monitor weed distribution at visitor areas and downstream of river and creek crossings.
- 5.11.14 Provide support to local organisations in preparing weed management programs for mining leases, Park leases and outstation areas.
- 5.11.15 Develop and implement integrated identification, control and monitoring training programs for Park staff and Bininj community members involved in weed management.
- 5.11.16 Develop and implement education programs for Park residents, contractors, businesses, neighbours and schools on weed identification, impacts, management and how weeds spread.

## 5.12 Feral and domestic animals

### Our aim

Through control programs developed and implemented in consultation with Bininj, the adverse effects of domestic and feral animals on the natural and cultural values of the Park, and on human safety, are minimised.

### Measuring how well we are meeting our aim

- Extent to which values within identified management areas have recovered from feral animal impacts
- Bininj satisfaction with their level of involvement in the planning and management of feral animal programs

### Background

Feral animals can damage the cultural and natural values of country. They may impact on access, aesthetics and available food resources, and cause erosion, salt water intrusion, and the spread of weeds. Asian water buffalo, cattle, pigs, horses, donkeys, dogs, cats, European bees, cane toads and introduced ants are present in Kakadu. There are also risks that new species, such as crazy ants, will invade.

The Asian water buffalo caused considerable impacts on freshwater/floodplain, woodland, tidal flat, monsoon forest and escarpment ecosystems as well as rock art sites. Freshwater springs were particularly impacted and many changed from clear running systems to turbid sediment-carrying systems. Buffalo are also one of the major feral animal threats to the effective management of mimosa and other weeds. The Brucellosis and Tuberculosis Eradication Campaign (BTEC), completed in 1997, removed most buffalo from the Park and enabled disturbed areas to recover. Since then, the numbers of buffalo in the Park have increased gradually. Most feral animal control programs in recent years have focused on temporary reductions of pig and horse numbers. More recently, isolated populations of big-headed ants were controlled in the Park, Jabiru and lease areas.

Control of cane toads has not been attempted in the Park as at the time of preparing this Plan there is no known method to manage populations of cane toads over large areas. However, monitoring programs related to cane toad distribution and impacts on native wildlife are in place within the different habitats in the Park. The Australian Government is currently undertaking research into potential biological control options for cane toads.

Bininj place a range of values on some introduced animals which are influenced by the history of association between Bininj and each species over time. They value particular species, such as buffalo, cattle and pigs, as a source of food, and believe in the idea of rights to exist on country. For example, horses were around long before the declaration of the Park and some Bininj feel they have a right to continue to live there. During the life of the 4th Plan, a small herd of buffalo was kept in a fenced area in the Park (approximately 12 000 hectares, known as the Buffalo Farm) to provide meat for Bininj. The Board has established a subcommittee to review the future of the Buffalo Farm.

In consultation with Bininj, a comprehensive feral animal strategy for the Park has been developed. The strategy emphasises joint decision-making about values requiring protection and joint assessment of effectiveness in reducing damage to important values. It provides decision support tools and processes, and manuals for management of a range of threats and situations. The strategy emphasises prevention of new invasions, in part through participation in relevant national and regional forums assessing proposals for introductions.

Regulation 12.19 of the EPBC Regulations prohibits bringing in or keeping animals in the Park, except in accordance with this Plan or a permit issued by the Director. This prohibition does not apply to guide dogs for the blind, hearing dogs for the deaf, and other assistance animals for people with disabilities.

## Issues

- To ensure that effective control programs are in place, there is a need for a strategic integrated regional approach. Control programs need to consider:
  - how the priority of protecting the Park's natural and cultural values can be achieved while respecting the range of values that Bininj place on some introduced animals
  - the range of habitats, differing sensitivities to disturbance, susceptibility to weed invasion, and feral animal populations in adjoining country
  - what levels of damage to country caused by feral animals are seen as unacceptable to Bininj and Park staff
  - analysis and implementation of each control operation in close consultation with Bininj from the different clan estates.
- Some Bininj seek active involvement in conducting control programs and pursuing potential commercial and employment opportunities either jointly with the Park or independently through contracts between the Park and local Aboriginal associations.

- Preventing introductions of species that have the potential to establish unmanaged populations is the most important option available for reducing risk of additional damage caused by feral animals. At the time of writing this Plan, species that have the potential to enter the Park include banteng, sambar deer and crazy ants.
- Rules regarding restrictions on what animals may be brought into the Park are not always followed, either intentionally or accidentally through lack of knowledge. Some introduced fish and bird species could become pests or transmit disease to wild populations.
- The risks of some captive animals being released may increase when the population of Jabiru declines.
- Control programs must be conducted safely, effectively and with regard to animal welfare. There is a need to ensure that individuals undertaking control operations are appropriately trained and licensed.
- It is important to provide new residents with good information prior to their arrival in the Park about the potential impacts of introduced animals on Park values.
- Programs for individual species need to be well designed to ensure that important values are protected and damage caused by individual species is reduced. Program effectiveness needs to be measured by the protection of values, not numbers of feral animals controlled.
- Pigs, buffalo, horses, cane toads and big-headed ants are regarded as the greatest threats to Park values by both Bininj and Park managers.
- Presently absent from the Park but important potential threats already established or present in the Top End include yellow crazy ants, mosquito fish and other aquarium fish. Invertebrates and smaller vertebrates, including fish, probably present the greatest mid-term threats that the Park needs to be prepared to control.

### **Issues for individual species**

- **Buffalo and cattle:** Buffalo and cattle are abundant in neighbouring Arnhem Land and pastoral properties, and their numbers are increasing within the Park. Given the costs of culling, the Director may need to investigate cost recovery mechanisms through commercial activities. The future management of the Buffalo Farm needs to be considered. Some Bininj have indicated that they would like to have their own small domestic herds which would require intensive management to ensure they do not compromise control programs.
- **Pigs:** Pigs cause noticeable widespread impacts around springs, floodplains and small rainforest patches. Bininj are concerned about the decline in the numbers of turtles and yams that may be related to the presence of pigs. The spread of weeds such as mimosa and olive hymenachne by pigs through foraging activities is of major concern. Pigs breed rapidly, so populations can quickly re-establish following control.
- **Horses and donkeys:** Horses and donkeys cause erosion around water bodies, carry disease, and aid the spread of weeds such as mission grass, gamba grass and rattlepod. Horses near roads are a public safety issue. Information is required on seasonal distribution and survey techniques to help develop more effective targeted control programs.

- **Cane toads:** Cane toads reached the southern regions of Kakadu in 2001 and populations are now well established throughout the Park. Cane toads have serious impacts on some wildlife populations. Toads eat a variety of invertebrate and vertebrate native animals (which not only impacts on prey species but also reduces food resources for other native animals), and they have toxic defences that can result in the deaths of animals that eat toads. These impacts also affect the availability of some bush foods for Bininj. Following the arrival of toads in the Park, there has been a notable decline in the numbers of quolls and goannas. Large dragons, elapid snakes and other species are also likely to be affected.
- **Introduced ants:** Introduced ants are capable of displacing other invertebrates such as green ants, thereby altering food availability for native animals. Introduced ants currently found in the Park include the ginger ant, pharaoh's ant, Singapore ant, ghost ant and big-headed ant. Major costs have been associated with the control of big-headed ants in Kakadu since 2001. The possible introduction of the crazy ant is of major concern. Staff and residents need to be well equipped to quickly and reliably recognise introduced ant species.
- **Cats and dogs:** There is a lack of information about the impacts and population of cats. However, cats are believed to prey on animals within all habitat types. Cats are also vectors of human and animal disease. To date, no effective cat control program has been developed. Feral dogs interbreed with dingoes, and in some locations hybrid dingoes may come to dominate dingo populations and place increased pressure on native wildlife in the Park. Dogs that are not looked after may pose health risks in Jabiru and in Aboriginal living areas.
- **Exotic aquatic animals:** The introduction of exotic aquatic animals into waterways in the Park would pose significant ecological risks. Exotic marine animals such as the black-striped mussel could pose significant threats to the coastal and estuary areas of the Park.
- **Exotic birds:** Residents and visitors are not allowed to bring in pet birds, as they may introduce diseases and some species may become pests. Eradication of exotic birds is difficult if large populations become established over significant areas. Species accidentally introduced into Darwin, such as tree sparrows and spice finches, could become a problem in Kakadu if they become established on the Territory mainland.
- **European bees:** European bees may adversely affect native insects and compete with native animals for nectar, pollen and tree hollows. Research is required to determine the abundance and level of impacts of European bees on wildlife within the Park. Control by Park staff does not presently extend beyond Park infrastructure and tourist areas.
- **Biological control agents:** The *Cyrtobagous* weevil was introduced into the Park in 1983 to aid with salvinia control. The side leaf-feeding beetle (*Calligrapha pantherina*) is also present in the Park. No adverse ecological impacts of these agents have been reported. Research is currently under way into the development of a biological control agent for cane toads. Some mimosa control agents have been developed but not introduced to Kakadu as they are only viable where there are extensive stands of mimosa.

## **What we are going to do**

### ***Policies***

- 5.12.1 Recommendations from the Feral Animal Management Strategy for the Park will be implemented after public comments have been sought and following Board approval. Decision support tools will be used to help Park staff and Bininj to make joint decisions, using current information, about costs, reducing damage, generating income, monitoring populations over time and acknowledging the interest of some individuals in small populations being maintained.
- 5.12.2 Protocols for ensuring that animal welfare standards are met will be rigorously observed.
- 5.12.3 The Director will implement controls for the entry and movement within the Park of soils, pot plants, logs and other materials with a high potential for spreading feral animals and diseases.
- 5.12.4 The entry of dogs to the Park with visitors will be restricted to guide dogs for the vision and hearing impaired, or an assistance animal used by a person with a disability. Permits to bring dogs in for other purposes will only be considered in exceptional circumstances.
- 5.12.5 Park staff and residents within lease areas may keep no more than two dogs per household without a permit issued by the Director. Cats or pet birds are not permitted to be kept, but exceptions may be made with the Director's approval for rehabilitated local, native birds that cannot be re-released to the wild.
- 5.12.6 Park staff, Jabiru residents and residents within lease areas will only be permitted to keep fish native to the Magela Creek system in aquariums and permits may be issued to collect specimens for this purpose.
- 5.12.7 The Director may provide training in control techniques to enable Bininj not employed by the Park to obtain required licences to undertake feral animal control.
- 5.12.8 Park staff will work with neighbours and cooperate with relevant Northern Territory authorities to develop regional approaches for feral animal management.
- 5.12.9 Opportunistic control will be undertaken for cats and dogs. Feral dogs and European bees will be actively controlled where they present particular health and safety risks to people or otherwise cause a significant nuisance.
- 5.12.10 Future proposals regarding the introduction of biological control agents will only be approved subject to rigorous research. This will help to ensure that the chance of any potential negative impacts on Park values caused by their introduction is minimised.
- 5.12.11 Non-native animals may be brought into or taken through the Park in accordance with a permit issued by the Director and where it is consistent with policies and actions in this Plan.
- 5.12.12 Managed herds may only be kept at the existing Buffalo Farm.

## **Actions**

- 5.12.13 Develop and implement feral animal plans for districts which include identification by Park staff and Bininj of:
  - the values to be protected
  - sites suffering damage and hence requiring control programs
  - methods to be adopted
  - processes to measure and report on effectiveness of actions.
- 5.12.14 Develop decision support tools to assist in implementation of feral animal plans.
- 5.12.15 Develop contingency plans for managing introductions of particularly high risk feral animal species.
- 5.12.16 Cooperate with relevant agencies in pursuing a collaborative approach to the management and control of cane toads.
- 5.12.17 Provide regular reports to the Board that include information on Bininj participation, assessment of outcomes achieved and lessons learnt.
- 5.12.18 Park staff will work with Bininj to investigate the ecological, operational and safety issues associated with business and tourism proposals that involve the harvest of feral animals.
- 5.12.19 Review the future of the Buffalo Farm and prepare a rehabilitation strategy.
- 5.12.20 Work with landowners in Arnhem Land and on the Park's western boundary and cooperate with relevant Northern Territory authorities to develop regional approaches for feral animal management and to help minimise cross border movement.
- 5.12.21 Liaise with the Jabiru Health Clinic to develop appropriate management programs for dogs kept in Jabiru and Aboriginal living areas.
- 5.12.22 Maintain awareness about national research into the development of biological and other control methods, and seek involvement with relevant decision-making committees regarding the introduction and keeping of exotic species in the Top End. Develop contingency plans as needed for particularly high risk species.
- 5.12.23 Continue to monitor populations of *Cyrtobagous* weevil within salvinia infested localities.
- 5.12.24 Work with relevant regional authorities to prepare public education programs. Prepare and distribute information about the recognition of feral animals, their known impacts and preferred management actions. Review the information annually.
- 5.12.25 Prepare and distribute an information kit to all Park residents, businesses, relevant tourism associations, freight companies and contractors to inform them of relevant EPBC Regulations and Management Plan requirements regarding the entry of plant, animal and soil material into the Park.



## 6. Visitor management and Park use

Kakadu National Park is a World Heritage place and people from all over the world would like to visit Kakadu for its ancient cultural heritage, wildlife and magnificent landscapes. Bininj are happy and proud to share Kakadu, and would like to be more involved in tourism. However, it is important for Bininj that this does not happen too quickly, and that tourism respects the wishes of Bininj and helps safeguard their culture, lifestyle and privacy. It is important that Kakadu is promoted in ways that are accurate and give people the right expectations about a visit to the Park. New ways will be looked at to help visitors enjoy Kakadu and all its seasons, see how Bininj can benefit more from tourism, and also find how tourism activities can be better managed and give more certainty to the tourism industry. This will be done by Bininj, Parks Australia; the tourism industry and Park user groups working together.

*'I want visitors to feel something they'll never forget – and have in their heart and mind forever.'*

**Bessie Coleman, Wurrkbarbar/Jawoyn Clan**

*'Our land has a big story. Sometimes we tell a little bit at a time. Come and hear our stories, see our land. A little bit might stay in your hearts. If you want more, you can come back.'*

**Jacob Nayinggul, Manilagarr Clan**

### 6.1 Recreational opportunities and tourism directions

#### **Our aim**

Kakadu National Park is universally recognised as one of the great World Heritage parks, as a place with:

- a living Aboriginal culture – home to Bininj
- extraordinary natural landscapes and a rich variety of plants and animals
- enriching and memorable experiences for visitors
- a strong and successful partnership between traditional owners, governments, the tourism industry and Park user groups, providing world's best practice in caring for country and sustainable tourism.

#### **Measuring how well we are meeting our aim**

- Level of Bininj satisfaction with the nature, scope and impact of recreational and tourism opportunities in the Park
- Level of visitor and tourism industry satisfaction with recreational and tourism opportunities in the Park
- Extent to which Bininj gain economic benefit from commercial tourism opportunities

#### **Background**

Bininj are proud to share their country with visitors and welcome tourism opportunities that help visitors to learn about, appreciate and experience Bininj culture and country in Kakadu.

In May 2004, the Director of National Parks, on behalf of the Board and the Australian and Northern Territory governments, commissioned the development of a shared tourism vision for the Park.

The following Shared Vision Principles were developed to enable the tourism industry to understand how the Board and Bininj want tourism to be managed in the Park while providing greater levels of certainty to the tourism industry:

1. Kakadu is first and foremost home to Bininj. They will influence, manage, encourage and participate in the development of tourism from which they gain economic and social benefits.
2. Bininj have leased their land to the Australian Government to be jointly managed as a national park to protect and manage its priceless natural and cultural heritage.
3. All parties recognise and will enhance the protection of Kakadu's diverse landscapes, internationally important wetlands and spectacular plants and animals.
4. Tourism should not be boss of country. Aboriginal people will determine how and when they will be involved in tourism.
5. The pace and level of tourism development in Kakadu will be determined by the traditional owners.
6. Respect for customary law and traditions will underpin all tourism decisions.
7. All parties will respect the need for Bininj to retain their privacy, to use their land for hunting, fishing and ceremony and to protect and hold private their sacred stories and sites.
8. Aboriginal culture and the land on which it is based will be protected and promoted through well-managed tourism practices and appropriate interpretation.
9. The travel and tourism industry will have security of tenure, profitable investment and the opportunity to provide authentic and memorable visitor experiences, whilst respecting culture and country.
10. Kakadu National Park will be globally recognised as one of the world's most significant natural and cultural World Heritage areas, offering visitors a range of enriching and memorable experiences.

The Board accepted these principles as a guide to balance the primary importance of Kakadu's natural and cultural values with the development of a strategic approach to tourism.

## **Issues**

- The management challenge for Kakadu is to strike a balance between providing opportunities for the appropriate use, appreciation and enjoyment of the Park by a diversity of visitors and protecting the rights and interests of Bininj and the natural and cultural values of the Park.

## **What we are going to do**

### ***Policy***

- 6.1.1 Tourism and recreational opportunities in the Park will be managed in accordance with the Shared Vision Principles and the assessment and approval processes outlined in Section 8.3, Assessment of proposals.

## **Actions**

- 6.1.2 The Board of Management will, as a high priority, develop a Tourism Master Plan consistent with the Shared Vision Principles in consultation with the traditional owners, the tourism industry, Park user groups and other stakeholders. The Tourism Master Plan will be made available for public comment and will include details about, but not be limited to:
- visitor experiences
  - facilities
  - future access
  - commercial opportunities
  - how the Park can be protected from adverse tourism impacts
  - how tourism can support management of the Park
  - how tourism can meet the aspirations of traditional owners.
- 6.1.3 Consistent with other provisions of this Plan, the Board and the Director may approve actions and activities, including new visitor infrastructure, that are detailed in the Tourism Master Plan.

## **6.2 Access and site management**

### **Our aim**

Visitor experiences are promoted and managed in ways that are culturally and environmentally appropriate.

### **Measuring how well we are meeting our aim**

- Level of Bininj satisfaction with management of visitor access to the Park
- Extent to which visitor impacts are within acceptable levels
- Level of tourism industry satisfaction with site access and management

### **Background**

Appreciation, enjoyment and understanding of the Park are core elements of the vision for the Park. Providing for a range of visitors and activities in a manner that ensures a safe and rewarding experience for the visitor while maintaining the natural and cultural values of the Park is a major focus of management.

There are areas within the Park that are not accessible to the public, either on a permanent or a temporary basis. The Director's lease obligations require compliance with any reasonable request from traditional owners, through the NLC, to restrict access to areas of the Park for the purpose of Aboriginal use. These include Bininj living areas, areas that are set aside to enable Bininj to exercise their traditional rights associated with ceremonial activities and hunting, and areas where Bininj carry out their own commercial operations. In addition, the Director may be required

to implement temporary or long-term closures of visitor areas if an activity has the potential to impact on Park values or poses a risk to public safety. In other cases, visitor access to sites may be limited to protect visitor experience, Park values, or Bininj interests. In such cases, access is managed through permit and booking systems.

The EPBC Regulations enable the Director to prohibit or restrict entry to areas either by all or some people, at all times or certain times, and to all or part of the Park.

### **Issues**

- Bininj interests need to be respected and Park values protected when making decisions about area and site planning and management.
- With the exception of issues that are of an urgent nature, it is important that the tourism industry is consulted about proposed changes to access and that decisions are made and implemented within appropriate timeframes.

### **What we are going to do**

#### ***Policies***

- 6.2.1 Areas and sites within the Park will be managed in accordance with the Shared Tourism Vision principles and with policies and actions in Section 6.1, Recreational opportunities and tourism directions.
- 6.2.2 To help manage access to sites, either temporarily or permanently, such measures as closures under the EPBC Regulations and use of permits and booking systems may be used.
- 6.2.3 Decisions regarding short- and long-term changes to access will be made in accordance with Section 4.1, Making decisions and working together, and procedures approved by the Board.
- 6.2.4 As provided by Section 4.1, as far as practicable the views of the tourism industry and other relevant stakeholders will be taken into account in access decisions and they will be provided with advance notification before decisions are implemented.
- 6.2.5 Bininj enterprise opportunities will be promoted and additional areas of the Park may be set aside for Bininj and joint venture enterprises (see Section 6.14, Commercial tour activities).

## **6.3 Access by road**

### **Our aim**

Road access for residents, visitors and management purposes is provided in a manner that protects Park values and Bininj interests.

### **Measuring how well we are meeting our aim**

- Condition of roads within the Park and their capacity to meet existing and forecast use

## **Background**

Most visitors to Kakadu National Park arrive by road and travel within the Park by road. The main roads into the Park are the Arnhem Highway from Darwin and the Kakadu Highway from Pine Creek. The Park can also be accessed via the Old Darwin Road and Oenpelli Road. The Oenpelli Road provides dry season access to Arnhem Land. This road becomes impassable at times during the wet season at the East Alligator River and Magela Creek crossings.

The Northern Territory Government funds the management of all of the above roads, as well as the Cooinda Road and Gunlom Road (from the Kakadu Highway to the gate just past the Koolpin turn-off on the Gimbat Road). The Director maintains other roads and tracks as necessary for visitor access and Park management purposes. Aboriginal organisations maintain outstation roads and tracks unless they are maintained by the Director. Lessees of areas within the Park are responsible for maintaining roads and tracks in lease areas.

To maintain gravel roads and tracks, the Director has regularly extracted sand and gravel from gravel pits within the Park. This reduces the risk of introducing weeds, pests and pathogens and is less costly than importing sand and gravel. Sterile crushed rock from quarries outside the Park has been used for road works when required.

All roads and tracks in the Park are part of the Park and subject to the EPBC Act and Regulations. Northern Territory laws also apply to the extent those laws can operate concurrently with the EPBC Act and Regulations. The EPBC Regulations (rr.12.41, 12.42 and 12.43) provide for roads and tracks to be designated as either available for public use or not. The Director may also place restrictions on the persons or types of vehicles that may use a particular road or track, and may impose certain other controls including speed limits.

From time to time the Northern Territory Government may also place controls on the major roads that it maintains, such as weight limits or seasonal closures to protect the road surface and provide for people's safety.

Road works are an activity covered by s.354(1) of the EPBC Act and can only be carried on in accordance with this Plan. Regulation 12.16 of the EPBC Regulations prohibits the introduction of minerals, clay, sand, stone or other earth materials unless authorised by a permit from the Director or otherwise authorised by this Plan.

## **Issues**

- From time to time, roads and tracks need to be temporarily closed to facilitate Park management operations or at the request of Bininj.
- Roads and tracks require ongoing maintenance.
- Impacts on Park values of road maintenance or upgrading need to be minimised.

## **What we are going to do**

### ***Policies***

- 6.3.1 The Director will work closely with the Northern Territory Government in relation to road management in the Park.

- 6.3.2 Where practicable the Director will offer road maintenance contracts to local Aboriginal organisations in the first instance (consistent with lease agreements and procurement requirements of the Australian Government and the Director).
- 6.3.3 The Director may determine, in accordance with the EPBC Regulations, roads and tracks that will not be available for public use (permanently or temporarily). The Director may restrict use to particular groups (eg tracks used by Bininj to access outstations) and may determine restrictions on vehicle use of roads and tracks (eg vehicle weight and size limits).
- 6.3.4 Roads and tracks that are generally open to the public may be closed for public safety, environmental protection, cultural and management purposes.
- 6.3.5 Construction of new roads and tracks in the Park will be subject to Section 8.1, Capital works and infrastructure.
- 6.3.6 The Director will maintain roads and tracks that are not maintained by the Northern Territory Government or others to a standard that provides for residents' and visitors' safe use and for management purposes.
- 6.3.7 In order to minimise the extraction of gravel from the Park, the Director may bring inert treated crushed rock into the Park for the purpose of road works. Other people may bring such material in for that purpose with the approval of the Director.

### **Action**

- 6.3.8 Prepare a strategy for the management of roads within the Park.

## **6.4 Access by air**

### **Our aim**

A range of recreational and commercial flying opportunities are undertaken in ways that minimise disturbance to residents, visitors and wildlife.

### **Measuring how well we are meeting our aim**

- Level of compliance with the Fly Neighbourly Advice

### **Background**

Bininj use aircraft for wet season access to isolated communities and outstations and to remote areas for ceremonies. Visitors, commercial interests and service providers also use aircraft to access the Park and to undertake a range of activities such as scenic flights, image capture and research. Aircraft, both fixed wing and helicopters, are used by Park staff as necessary for management purposes and responding to emergencies.

Prior to the establishment of the Park, airstrips were constructed for a variety of purposes at a number of locations that are now part of the Park. They supported pastoral activities, mining activities, tourism and research and transport for residents in the wet season. The main airstrips are located at Jabiru and Coinda which are not part of the Park. A number of disused airstrips

are maintained to enable helicopter access for emergency and management purposes. Others have been closed down and the land rehabilitated.

To balance the interests of visitors on scenic flights and those on the ground and to protect the peace and privacy of Park residents the Director, in consultation with the then civil aviation regulator (now Air Services Australia) and local scenic flight operators, developed a Fly Neighbourly Advice in 1996. The Fly Neighbourly Advice (also known as a Fly Neighbourly Agreement or Policy) describes recommended routes and height and lateral separations for flights over the Park, and is included in the En-Route Supplement Australia issued for pilots by Air Services Australia.

Under the EPBC Regulations (r.12.36) commercial flights operated over the Park up to 3000 metres above sea level (other than flights on approved flight paths to or from an airport) are deemed to be carried on in the Park and need to be authorised by a permit or this Plan. The Regulations (r.12.58) also prohibit landing and take-off of aircraft in the Park except in areas that the Director determines may be used for that purpose (or in an emergency). The definition of 'aircraft' in the EPBC Act includes any apparatus that can derive support in the atmosphere from the reactions of the air, such as gliders, hang-gliders, para-sailers, parachutes and similar equipment.

## **Issues**

- Access to the Park by air is essential for a range of reasons.
- Aircraft use should not detract from the use and quiet enjoyment of the Park by residents and visitors on the ground. At present Bininj hunting areas are not identified in the Fly Neighbourly Advice.
- The EPBC Act enables the use of aircraft in the airspace above the Park to be managed through permits issued under the EPBC Regulations. It is important that consultation with Air Services Australia and the Regional Airspace Users Committee occurs regarding permit requirements.
- Requests have been received for aircraft landings outside defined airstrips for bushwalking, fishing and other recreational and commercial activities.
- Maintenance and management of the Jabiru airstrip may change as the Ranger mine moves towards closure.

## **What we are going to do**

### ***Policies***

- 6.4.1 The Fly Neighbourly Advice will provide details about the appropriate flying routes and use of aircraft over the Park.
- 6.4.2 Aircraft may be operated for the following commercial purposes in the airspace over the Park up to 3000 metres above mean sea level without a permit from the Director: regular commercial and service delivery activities such as passenger transport, charter operations and medical transport to and from Jabiru or Coinda.
- 6.4.3 Aircraft may be operated for other commercial purposes (such as scenic flights) in the airspace over the Park up to 3000 metres above mean sea level without a permit

issued by the Director provided the activity is undertaken in accordance with the Fly Neighbourly Advice.

- 6.4.4 Permits may be issued for the landing and take-off of aircraft in the Park, following consultation with Bininj, for the following purposes:
- authorised research
  - authorised image capture
  - authorised Bininj commercial activities
  - other Bininj activities, including access to isolated outstations and access to remote areas for ceremonies
  - community events in Jabiru and the Park
  - other purposes as approved by the Board.
- 6.4.5 Permits will not be issued authorising the landing and take-off of gliders, hang-gliders, para-sailers, parachutes and similar equipment.
- 6.4.6 The Director may maintain some airstrips for management or emergency purposes.

### **Action**

- 6.4.7 In conjunction with Air Services Australia and local flight operators, promote the Fly Neighbourly Advice among providers of air transport services and review regularly as required.

## **6.5 Visitor safety**

### **Our aim**

Visitors to Kakadu have a safe and rewarding experience.

### **Measuring how well we are meeting our aim**

- Number and severity of incidents involving Park users
- Number of risk assessments completed for key visitor destinations in the Park

### **Background**

Bininj feel a sense of responsibility for all people visiting their country, and feel distressed if a visitor is injured or dies. In addition, the Director has legal responsibilities in relation to visitor safety. As such the safety and welfare of Park visitors is an important consideration in managing the Park.

At the time of preparing this Plan the EPBC Regulations (r.12.26) prohibit certain activities in the Park other than in accordance with a permit from the Director, or in an area approved by the Director. To protect Park values and in the interest of public safety these activities, which include climbing, abseiling and jumping from cliffs and rock faces, will not be allowed (see Section 6.9, Other recreational activities and public gatherings). Under the Regulations (r.12.23) the Director



may also close areas of the Park where it is necessary for safety reasons. This may include closing areas to people engaged in particular activities.

A range of measures are adopted in the Park to reduce risks to visitors, including:

- maintaining roads, tracks and visitor facilities in a safe condition
- providing educational materials for visitors on safety risks and safe behaviour
- controlling feral animals in the vicinity of roads and visitor attractions
- removing estuarine crocodiles from plunge pools in accordance with the Park's Crocodile Management Policy
- providing an emergency contact radio network in remote areas of the Park.

All visitor safety incidents are reported, recorded and reviewed regularly. Using this information, the Director has compiled a Risk Watch List for the Park that identifies and rates a range of risks, including risks to visitor safety. The Risk Watch List also specifies risk management measures that are carried out as required. The list is reviewed and updated regularly.

### **Issues**

- The Park by its size and nature presents a number of potential risks to visitors.
- As many visitors come to the Park on commercial tours, tour operators play an important role in helping to provide Park visitors with a safe experience.

### **What we are going to do**

#### ***Policies***

- 6.5.1 Risks will be regularly assessed and management measures to address risks will be reviewed and amended consistent with the Director's Risk Management Policy.
- 6.5.2 Where reasonably necessary and practicable the Director may, subject to and in accordance with the EPBC Regulations, prohibit activities in the Park that present a risk to public safety or close areas of the Park where it is necessary in order to prevent people engaging in unsafe activities.

#### ***Actions***

- 6.5.3 Regularly review and update the Risk Watch List or similar risk monitoring and management systems and prepare risk assessments of visitor sites and facilities. Based on the Risk Watch List and risk assessments, implement management measures to reduce visitor risks to acceptable levels, and review them regularly.
- 6.5.4 Undertake regular safety inspections and maintenance of all visitor facilities including roads and walking tracks.
- 6.5.5 Provide tour operators and visitors with pre-visit and on-site information about safety risks and safe behaviour.

## 6.6 Camping

### Our aim

A range of camping opportunities are provided that optimise the diversity and quality of visitor experiences while minimising adverse impacts and protecting Bininj interests.

### Measuring how well we are meeting our aim

- Level of visitor satisfaction with camping opportunities in the Park
- Extent to which impacts from camping are within acceptable levels

### Background

Visitors to Kakadu seek different camping opportunities, from quiet and remote places where campers are self-sufficient to more accessible places where facilities are provided.

Five commercially operated camping areas operate in and adjacent to Kakadu. During the life of the previous (4th) Plan, four of the commercially operated campgrounds were open in the wet season, but only one of the Director's campgrounds with facilities was accessible and usable at this time (see also Section 6.15, Commercial accommodation).

The EPBC Regulations (r.12.28) prohibit camping in any area of the Park other than camping areas determined by the Director, unless authorised by a permit or otherwise done in accordance with this Plan. The camping areas in Kakadu as at 2006 are shown in Figure 6. To enhance visitor satisfaction and to protect Park values, a range of measures such as setting limits on numbers of people, introducing booking and permit systems, and setting areas aside for the exclusive use of independent travellers or commercial tour groups may be considered. Fees for use of camping areas are determined by the Director under the EPBC Act (s.356A).

For some visitors, campfires are an inherent part of the camping experience. During the life of the 4th Plan, research into the impacts of firewood collection found that most campground areas are depleted of on-ground wood to a radius of 50 metres and found damage to trees and other plants.

Under the EPBC Regulations (r.12.30), fires may only be lit or used in a portable barbecue or stove, a fireplace provided by the Director or a fireplace of a kind provided by the Director, or a place approved by the Director.

### Issues

- Camping areas sometimes operate at full capacity. Crowding can reduce visitor satisfaction, increase conflicts between visitors and increase environmental impacts. Data on numbers of visitors who use camping areas, their levels of satisfaction, the scale of environmental impacts and the costs associated with their management is essential to inform management approaches.
- Firewood collection can have a negative impact on habitats, and bringing firewood into the Park poses risks associated with the entry of weed seeds, pathogens and ants.

## **What we are going to do**

### ***Policies***

- 6.6.1 Camping opportunities in the Park will be considered as part of the Tourism Master Plan (see Section 6.1, Recreational opportunities and tourism directions).
- 6.6.2 Camping will be managed in a manner that:
- provides for a range of opportunities from small, quiet areas with few or no facilities, to developed campgrounds with facilities for larger numbers of people
  - considers the needs of both independent travellers and commercial tour groups
  - provides visitors with a safe and rewarding camping experience
  - ensures that impacts on Park values are minimised
  - is consistent with the Shared Tourism Vision principles.
- 6.6.3 Subject to the outcomes of the Tourism Master Plan, new camping areas may be developed and others relocated, closed or changed, for example, for environmental or safety concerns.
- 6.6.4 Subject to any access restrictions under Section 6.2, visitors may camp (without a permit) at the campgrounds identified in Figure 6 and other campgrounds established under this Plan.
- 6.6.5 During the life of this Plan, camping fees and management of campgrounds will be reviewed.
- 6.6.6 Decision-making procedures outlined in Section 4.1, Making decisions and working together and in Section 8.3, Assessment of proposals, will be followed in relation to provision of new camping opportunities or changes to management of existing camping opportunities.
- 6.6.7 In accordance with EPBC Regulations, bringing in firewood from outside the Park is not permitted. The Director may put in place alternative arrangements to collecting firewood in and transporting it through the Park.

### ***Actions***

- 6.6.8 Undertake a review of camping in the Park to provide recommendations to the Board on future management options. The review will consider but not be limited to:
- relevant outcomes from the Tourism Master Plan
  - the numbers of visitors who use existing camping areas, their levels of satisfaction, the scale of cultural and environmental impacts, and the costs associated with their management
  - capacity of camping areas, including consideration of the need for booking systems
  - feasibility of developing additional designated camping areas

- management of camping outside designated areas
- visitor safety issues and seasonal access constraints
- camping fees
- management of firewood collection and use
- future monitoring requirements.

## 6.7 Day walks and overnight bushwalking

### Our aim

Visitors to Kakadu have the opportunity to experience Kakadu's habitats through provision of a range of day and overnight walking opportunities in a manner that protects and promotes the natural and cultural values of the Park.

### Measuring how well we are meeting our aim

- Extent to which impacts from walking activities are within acceptable levels
- Level of Bininj satisfaction with management of and involvement in day and overnight walking activities
- Visitor satisfaction with the range of day and overnight walking opportunities

### Background

Kakadu provides a range of opportunities that enable visitors to undertake day walks and overnight bushwalks and is sought after as one of the major bushwalking destinations in the Top End. Marked walking tracks in the Park vary in duration from half an hour to whole day walks, are of varying difficulty and are located in a range of habitats including monsoon forests, woodlands, wetlands, rivers and escarpment country.

Opportunities for overnight bushwalks are provided in the escarpment country of the Park. These are undertaken along unmarked routes that have been identified by traditional owners. Due to seasonal flooding, many day walks and overnight bushwalks are inaccessible during the wet season.

Under the EPBC Regulations, walking off a road or a track open to the public or a designated walking track is prohibited. During the life of the 4th Plan, all overnight walks were undertaken only in accordance with a permit. Daily and/or monthly limits apply on the number of bushwalkers for each of the overnight bushwalking routes.

### Issues

- Walking provides one of the best opportunities to experience and become more familiar with Kakadu National Park.
- Areas of the Park that are sought after for overnight bushwalking may also be areas of great significance for Bininj. Bininj are particularly concerned that people adhere to agreed routes to avoid entering culturally sensitive areas.

- Walking in remote areas of the Park has potential risks and each year a number of incidents occur. Visitor safety is of particular concern to Bininj.
- There are insufficient data on the number of visitors undertaking day walks and the type and extent of impacts associated with day and overnight walks.
- At certain times of the year, such as during school holidays or on public holidays, demand for bushwalking permits exceeds availability. As a result, there have been requests for the development of additional bushwalking routes.
- There is a need to consider appropriate access to various visitor sites for visitors with physical impairments.
- Opportunities need to be available for Bininj wishing to be more involved in the management of bushwalking in the Park.

## **What we are going to do**

### ***Policies***

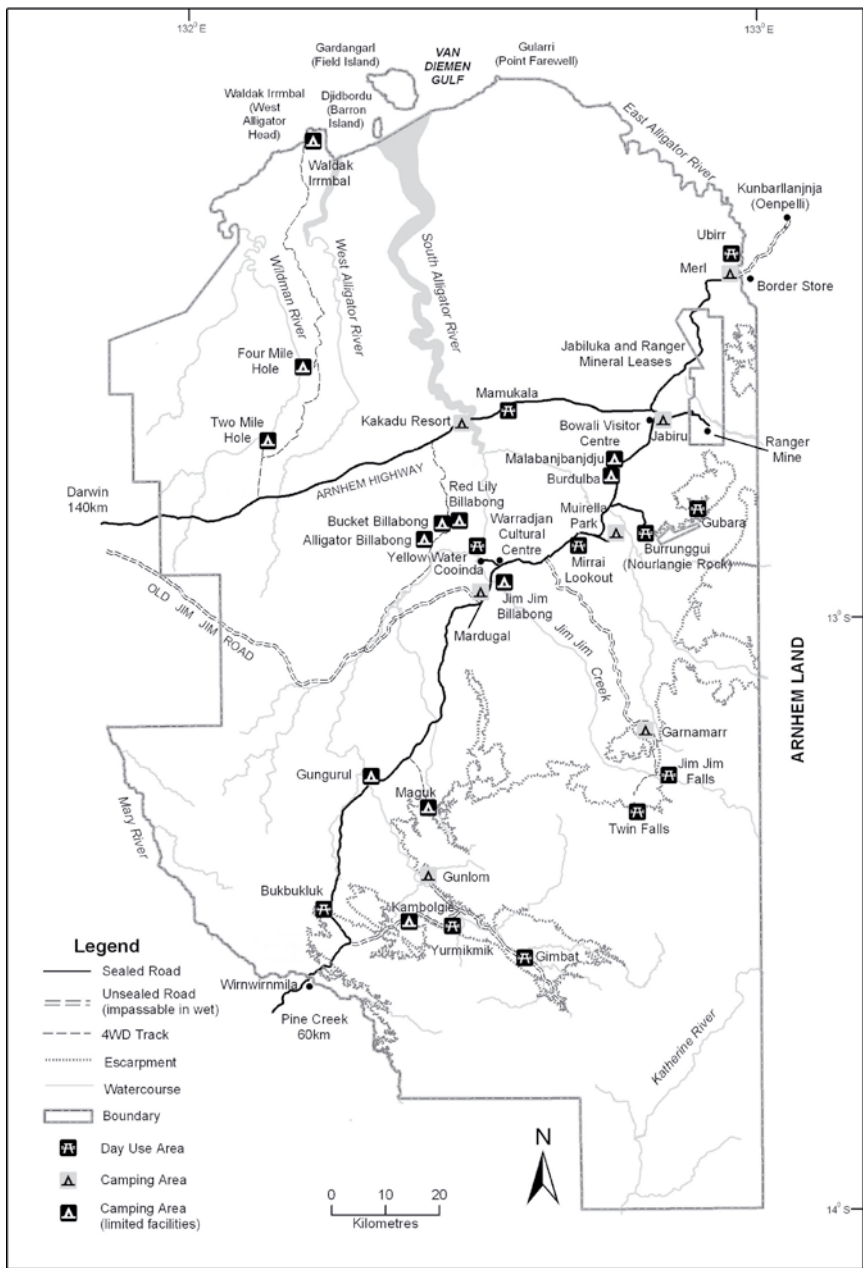
- 6.7.1 A range of day walk and overnight bushwalking opportunities will continue to be provided. New bushwalking routes and facilities may be provided, or existing ones altered, as a result of the recommendations of the Tourism Master Plan.
- 6.7.2 Walking track development will be managed in accordance with Section 8.3, Assessment of proposals.
- 6.7.3 Overnight bushwalking will be managed in the following way:
- Provision of overnight bushwalking opportunities will only be made following approval from relevant Bininj.
  - In conjunction with Bininj, routes will be regularly monitored. Management arrangements will be amended if needed, following consultation with bushwalking interests, to protect natural values or areas of cultural significance.
  - Pre-visit information will be provided to all intending walkers, including information on minimising impacts and bushwalker safety.
  - Visitor safety will be a primary concern and measures may be introduced as necessary, and in consultation with stakeholders, to help ensure this.
  - Agreed walking routes, permit requirements, limits and other arrangements in place at the commencement of this Plan will continue to apply until such time as any alternative arrangements are put in place following the development of a Bushwalking Strategy.

### ***Actions***

- 6.7.4 Develop a Bushwalking Strategy with Bininj and in consultation with relevant stakeholders. The strategy will address, but not be limited to:
- new bushwalking activities and facilities that may arise from the Tourism Master Plan

**Figure 6 – Camping and day use areas**

This figure shows camping areas in the Park as at 2006 that are available for camping without a permit. There are other areas in the Park where camping is provided for only in accordance with a permit. Such areas may be restricted to minimise environmental impacts, to protect the visitor experience, or for cultural purposes. Management arrangements for all camping in the Park will be reviewed during the life of the Plan.



- requirements for the management of cultural sites and objects
  - timing and frequency of bushwalking activities
  - reports associated with safety and compliance incidents
  - monitoring requirements and acceptable levels of impact
  - permit administration procedures
  - provision of pre-visit and on-site information.
- 6.7.5 Develop and implement walking track management guidelines and standards consistent with the National Standards for Walking Tracks.
- 6.7.6 Unless otherwise determined by the Director and Board, maintain or upgrade existing walking tracks in accordance with National Standards for Walking Tracks standards and the Bushwalking Strategy.
- 6.7.7 Where practicable, provide access and facilities for visitors with physical impairments at major visitor sites.
- 6.7.8 Establish programs to monitor:
- numbers of visitors undertaking day walks and overnight bushwalks
  - associated impacts
  - visitor satisfaction with walking opportunities.
- 6.7.9 Provide opportunities for Bininj to participate in the management of bushwalking.
- 6.7.10 Promote the use of fuel stoves and other means to reduce reliance on firewood use on overnight bushwalks.

## 6.8 Swimming

### Our aim

Visitors to Kakadu understand the risks associated with swimming in the Park and risks are appropriately managed.

### Measuring how well we are meeting our aim

- Number and seriousness of incidents associated with swimming

### Background

In the hot, tropical climate of the Top End swimming is an enjoyable activity. However, there are a number of potential risks and impacts associated with swimming in Top End waterways and entering waterways for other purposes.

Crocodiles, particularly estuarine crocodiles, are a major risk. Crocodile hunting ceased in the 1970s and the population has been steadily increasing since then. Crocodiles are now moving back into waters they inhabited prior to hunting. Since the late 1990s, crocodiles have been located in plunge pools at the base of the Arnhem Land escarpment each wet season.

During the life of the 4th Plan a Crocodile Management Strategy was developed to help protect the natural abundance of crocodiles, while minimising the risks that crocodiles pose to people. Consistent with the strategy, plunge pools that were visitor destinations were routinely monitored for the presence of crocodiles. Park staff removed any crocodiles from these areas at the start of the dry season, prior to the areas being opened to the public. In 2004, given the high level of crocodile risk at Twin Falls gorge, the Board decided to provide a boat shuttle service with local Indigenous interpreters and to ban swimming to ensure safe public access to the base of Twin Falls and to promote the area's cultural values. A longer-term strategy for access and use of this area is under development (see Section 5.8, Native plants and animals, for further information about crocodile management).

Due to the risks associated with the potential interaction of visitors with crocodiles, swimming in the Park is not actively promoted. The Director endeavours to warn visitors of the risk of crocodile attack through prominent signs near water bodies and warnings in information provided to Park visitors. Visitors are encouraged to use the public swimming pool at Jabiru or pools provided at hotels and other commercial accommodation. Traditional owners feel considerable responsibility for the welfare of visitors and this features significantly in their responsibilities in looking after country. Other cultural considerations are also a factor in making decisions about swimming.

Top End waterways in the escarpment country are also characterised by high cliffs and rock faces, strong currents and flash flooding during the wet season, and deep and cold water in plunge pools. These characteristics are unfamiliar to many visitors to the Park.

Waterways and their surrounds, particularly plunge pools, are unique and sensitive Top End environments which have the potential to change in character through inappropriate use, or introduction of pollutants such as sunscreens.

As noted in Section 6.5, Visitor safety, the Director has power under the EPBC Regulations (r.12.23) to close areas of the Park where it is necessary for safety reasons.

## **Issues**

- There are very few places in the Park where visitors can swim without significant risk of crocodile attack and some visitors may have unrealistic expectations about swimming. Ensuring visitors are aware of the risks associated with swimming, and applying appropriate risk mitigation measures while protecting visitor experience, is a key management challenge.
- Some plunge pool areas are very crowded during peak visitation times. This can adversely affect the quality of visitors' experience.
- When making decisions about swimming the Board considers implications on the tourism industry and visitor experience but must ensure visitor safety is not compromised.

## **What we are going to do**

### ***Policies***

- 6.8.1 Swimming will be managed in accordance with Section 6.5, Visitor safety, and in accordance with the following policies and actions.
- 6.8.2 The Board and Director will not promote swimming as a visitor activity. Park staff will



liaise with the tourism industry to ensure that promotion of the Park helps to create appropriate visitor expectations about all activities, including swimming (see Section 6.12, Promotion and marketing).

- 6.8.3 Any water bodies in the Park that are downstream of the Arnhem Land escarpment and considered to pose an unacceptable risk to visitors of attack by estuarine crocodiles will be closed to swimming (which includes entering the water) under the EPBC Regulations.
- 6.8.4 Waterways above and below the escarpment will be monitored regularly for environmental impacts and assessed for potential safety risks. Swimming may be prohibited if impacts or risks are considered to be unacceptable.

### **Actions**

- 6.8.5 Provide information to visitors, the tourism industry and the media about risks associated with swimming in the Park including the potential for crocodiles to enter areas undetected and the dangers of climbing cliffs, jumping from rocks and swimming in deep or very cold water or in strong currents.
- 6.8.6 Provide information to visitors regarding the range of ways to protect water quality.
- 6.8.7 Establish programs to monitor impacts and assess risks associated with swimming, including the effects of potential pollutants such as sunscreens and insect repellents, and review management arrangements as needed.

## **6.9 Other recreational activities and public gatherings**

### **Our aim**

Opportunities for a range of other recreational activities and public gatherings are provided in a manner that protects Park values, Bininj interests and visitor safety.

### **Measuring how well we are meeting our aim**

- Visitor and tour operator satisfaction with the range of recreational activities available
- Extent to which impacts on the Park and other visitor activities are within acceptable levels

### **Background**

Requests are occasionally received for approval to carry out recreational activities that are not specifically addressed elsewhere in this Plan. These may include, but are not limited to:

- mountain-bike riding, horse riding, abseiling, rock climbing and the use of airboats
- large public gatherings such as weddings, theatrical performances, charity functions or barbecues and picnics at particular sites
- Bininj commercial tourism proposals that seek to provide visitors with recreational opportunities that are currently not available in the Park
- Orienteering/rogaining.

At the time of preparing this Plan the EPBC Regulations (r.12.26) prohibit certain activities in the Park, such as climbing, abseiling and jumping from cliffs and rock faces, unless the Director has designated areas where the activity may be carried on. Regulation 12.31 prohibits public gatherings of more than 15 persons.

Some requests may include proposed activities that are regulated generally by the Regulations, such as use of vessels (r.12.56), landing and taking-off of aircraft (r.12.58), and use of firearms or other hunting equipment (r.12.18).

### **Issue**

- Some recreational activities are considered inappropriate in Kakadu due to safety, environmental or cultural reasons.

### **What we are going to do**

#### ***Policies***

- 6.9.1 The following recreational activities are prohibited by the Regulations, and permits will not be issued to undertake them in the Park:
- climbing, abseiling on, or jumping from rock faces
  - bungee jumping and BASE jumping
  - hang-gliding, paragliding and similar activities
  - recreational shooting and archery. (Note: These activities are allowed at recognised clubs near Jabiru.)
- 6.9.2 In addition, determinations will be made to prohibit the following activities in all parts of the Park:
- scuba diving
  - use of hovercraft, airboats and amphibious vehicles
  - use of non-motorised boats and craft, including kayaks and canoes.
- 6.9.3 Mountain-bike riding may be undertaken without a permit, but only on public vehicle access roads and tracks.
- 6.9.4 Subject to the Regulations, other recreational activities may be prohibited in all or parts of the Park if considered to pose an unacceptable risk to public safety, Park values, or Bininj interests.
- 6.9.5 Permits may be issued for public gatherings of more than 15 persons, subject to consultation with Bininj.

#### ***Action***

- 6.9.6 Develop guidelines for the management of public gatherings, including permit conditions and required safeguards for ensuring that environmental impacts are minimised.

## 6.10 Boating and fishing

### Our aim

Visitors enjoy a range of recreational fishing and boating opportunities in a manner that protects Park values and Bininj interests, and minimises risks to public safety.

### Measuring how well we are meeting our aim

- Level of visitor satisfaction with fishing and boating opportunities
- Level of Bininj satisfaction with management of fishing and boating, and their involvement in planning and management of these activities
- Extent to which impacts from fishing and boating activities are within acceptable levels
- Number and seriousness of compliance and safety related incidents

### Background

Fishing is a major recreational activity in the Top End of the Northern Territory and Kakadu includes some of the prime recreational fishing areas. Most fishing in the Park is undertaken by boat, though opportunities are also taken to fish from river and creek banks. The catch and release method of fishing is commonly practised in the Park.

Fishing competitions that involved catching, measuring, photographing and releasing each fish were provided for in the 4th Plan. The management of recreational fishing tours is addressed in Section 6.14, Commercial tour activities.

Under s.354(1) of the EPBC Act fishing and commercial activities are actions that can only be carried on in accordance with this Plan.

Commercial fishing and crabbing have not been allowed in the Park since 1990. Limited transport through the Park of crabs caught by commercial crabbers outside the Park was allowed during the life of the 4th Plan.

Regulation 12.35 of the EPBC Regulations (which operates subject to s.354(1) of the Act and this Plan) allows the Director to make determinations regulating recreational fishing in the Park. In addition, other parts of r.12.35 and other Regulations prohibit certain fishing practices. EPBC Regulation 12.35(4) prohibits taking fish by any method other than with a hook or a lure. As a result, it is not legal to catch small fish for bait with a net in Kakadu. Regulation 12.35(5) prohibits the use of a live animal as bait for fishing, and the use of any native species as bait except fish. Regulation 12.19 prohibits bringing an animal into a Commonwealth reserve, dead or alive, which means that it is not legal to bring fish or other animals into Kakadu for use as bait. Regulation 12.35 prohibits the cleaning of fish within 50 metres of any waterway within the Park. Fish cleaning facilities are provided at a safe distance from the water's edge at the South Alligator River and East Alligator River boat ramps, mainly to reduce the risk of crocodiles being attracted to these boat ramp areas.

Northern Territory laws, including laws regulating fishing, apply in the Park in so far as they can operate consistently with the EPBC Act and Regulations and this Plan.

Regulation 12.56 enables the Director to control the use of vessels in the Park including where vessels can and cannot be used, speed of vessels, number of vessels, and where vessels may be launched, anchored or moored.

For environmental reasons, a number of waterways within the Park have been closed to recreational boating and fishing under the Regulations (see Figure 7). These are:

- areas that provide important dry season breeding and refuge sites required for the long-term maintenance of fish stocks
- the West Alligator River catchment which provides an important long-term reference area as there are no equivalent river systems in the Top End that are entirely protected from recreational boating and fishing
- a section of the Magela Creek system downstream of the Ubirr Road to boating only, and upstream of the Ubirr Road to boating and fishing
- downstream of Yellow Water to The Forks on the South Alligator River; this closure is designed to help minimise the risk of further spread of the weed *Salvinia molesta*
- Barramundi Creek between the Old Darwin Road and the Kakadu Highway
- areas upstream of the Kakadu Highway (except Djarradjin–Muirella Park, Sandy Billabong and Jim Jim Billabong).

In the interests of visitor safety, the use of non-motorised boats will not be allowed under this Plan (see Section 6.9, Other recreational activities and public gatherings).

### **Issues**

- The Park is popular for recreational fishing and boating and there are potential conflicts with wildlife protection, Bininj use of waterways and other management practices.
- Visitors need to be aware of the potential risks associated with boating and fishing. These include the possibility of interactions with crocodiles and encountering unfavourable weather and tidal conditions.
- Boating has the potential to spread aquatic weeds such as salvinia.
- Appropriate measures are needed to ensure maximum survival rates of fish caught and released.
- To provide clarity and consistency with respect to the management of recreational fishing, bag limits for barramundi and other fish species should be consistent with the Northern Territory bag limits. To protect breeding stock, an upper size limit for barramundi has been suggested.
- During the life of the 4th Plan, there were requests for commercial fishermen to travel through the Park to Coopers Creek, which flows into the East Alligator River, and to transport live crabs and crab-catching equipment through the Park.
- There is limited information available on the level and extent of potential environmental impacts of boating and fishing in the Park.

## What we are going to do

### *Policies*

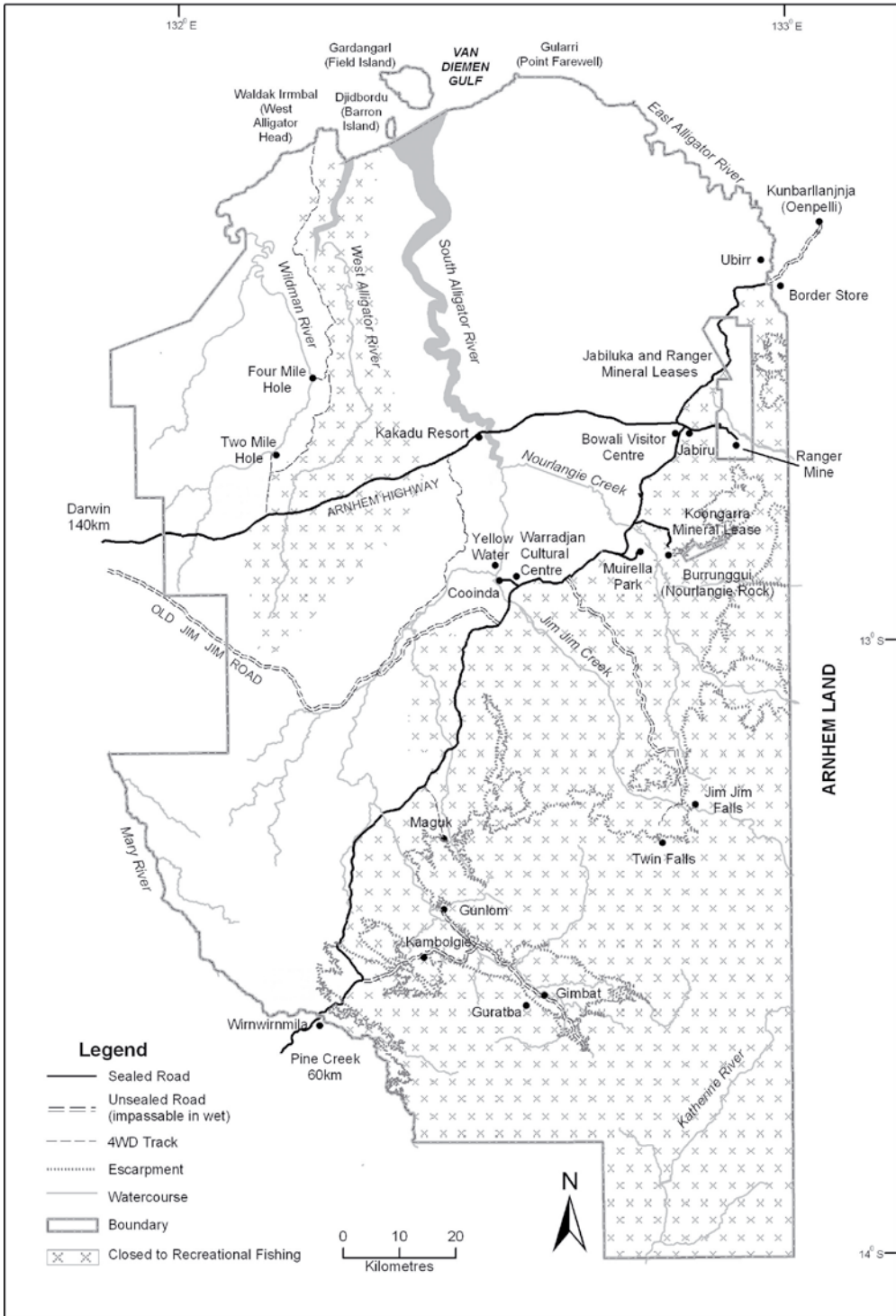
- 6.10.1 The Director and Board will work and consult with Bininj and the Amateur Fishermen's Association of the Northern Territory (AFANT) and the Northern Territory Fishing Tour Operators Association to improve management of fishing and boating to:
- ensure protection of Park values
  - improve visitor safety and visitor satisfaction
  - ensure interests of traditional owners are respected
  - consider access arrangements and other stakeholder issues
  - promote and exchange information.
- 6.10.2 Areas closed to boating and fishing at the commencement of this Plan under r.12.56 of the Regulations (see Background above and Figure 7) will be maintained.
- 6.10.3 Recreational boating may be carried on subject to the following:
- The Director may make further determinations under r.12.56 of the Regulations to prohibit or regulate use of vessels in areas of the Park. This may include regulating vessel speed limits, vessel numbers and classes of vessel, and closing areas to vessels.
  - Use of non-motorised vessels will not be allowed.
- 6.10.4 Subject to any decision by the Board under Policy 6.10.5 and the conditions specified in Policy 6.10.7, recreational fishing may be carried on in accordance with Northern Territory fisheries laws (at the time of preparing this Plan the Fisheries Act), including possession and size limits and any licensing system that may be introduced to manage recreational fishing.
- 6.10.5 The Board may withdraw approval under Policy 6.10.4 if it is considered necessary to more closely manage the impact of recreational fishing. If approval is withdrawn, recreational fishing will require a permit issued by the Director under the Regulations, or other authorisation from the Director.
- 6.10.6 Recreational fishing may be carried on subject to the following conditions:
- Recreational fishing will be managed in accordance with other policies in this Plan and provisions of the EPBC Regulations relevant to recreational fishing, including determinations made under r.12.35 of the Regulations.
  - The only bait that may be used is fish caught in the Park, with the exception that the Board may approve the use of processed bait in some areas of the Park.
  - Crabs must not be taken.
  - Use of barbless hooks by recreational fishers will be encouraged.
  - Recreational fishing competitions may be held in accordance with a permit issued by the Director. The Board may approve guidelines for authorising fishing competitions.

- 6.10.7 Nets, traps and pots used for recreational fishing outside the Park, and any fish caught outside the Park, may be transported into or through the Park only along the Oenpelli Road, Arnhem Highway and Kakadu Highway and must be securely stowed. Subject to consultation with recreational fishing stakeholders, transporting of fish and recreational fishing gear into or through other areas of the Park may be conducted in accordance with a permit issued by the Director under conditions approved by the Board and where consistent with this Plan.
- 6.10.8 Commercial fishing operations including crabbing must not be carried on in the Park. Fish and crabs caught for commercial purposes outside the Park, and nets, traps and other equipment used for the purposes of commercial fishing, may be transported into or through the Park along the Oenpelli Road, Arnhem Highway and Kakadu Highway only, in accordance with a permit issued by the Director.
- 6.10.9 Commercial fishing vessels licensed to operate in Coopers Creek (Arnhem Land) may travel in the Park on the East Alligator River between the mouth of the river and the mouth of Coopers Creek in accordance with a permit issued by the Director. Permit conditions will include:
- fish, crabs, nets, traps, dinghies and other equipment may be transported provided they are securely stowed in the mothership at all times while in the Park
  - tenders must be towed behind motherships and not be used for the transport of fish products, nets and other equipment.
- 6.10.10 Commercial fishing vessels may enter the Park for emergency purposes.

### **Actions**

- 6.10.11 Develop and implement monitoring programs to assess the level and extent of environmental impacts in waterways subject to high levels of boating and fishing activities.
- 6.10.12 In consultation with Bininj, develop guidelines for the conduct of fishing competitions. These will cover, but not be limited to:
- location and duration of fishing competitions
  - requirements for limits on the number of fishing competitions that may be permitted per year in the Park as a whole and/or in a particular area of the Park
  - number of participants permitted
  - recording requirements
  - safety provisions.
- 6.10.13 Undertake regular patrols of waterways and fishing activity with Bininj, Northern Territory Fisheries and Northern Territory Police when feasible.
- 6.10.14 In conjunction with the Amateur Fishermen's Association of the Northern Territory, the tourism industry and government agencies as appropriate, investigate options for safer fishing locations on waterways.

Figure 7 – Areas closed to recreational fishing and motorised boating



6.10.15 Provide information to boat users and anglers about safe boating and fishing practices.

6.10.16 Advise boat users on the East Alligator River about the need to obtain a permit before entering Arnhem Land.

## 6.11 Visitor information, education and interpretation

### Our aim

Working with Bininj, visitor expectations are appropriately set and the visitor experience is enriched through accurate, high quality information that promotes the World Heritage values and management of the Park.

### Measuring how well we are meeting our aim

- Number of visitors participating in educational and interpretive programs
- Range, type and quantity of interpretive materials and activities provided
- Level of visitor satisfaction with visit to Kakadu
- Number of hits on Parks Australia's Kakadu web page

### Background

Well prepared and distributed information enables people to plan their visit and enjoy Kakadu in a safe and appropriate way. Visitors are able to obtain information about the Park from:

- pre-visit information through publications, the tourism industry, and Parks Australia's website
- Park brochures and publications
- interpretive and regulatory signage
- displays, videos and face-to-face contact with Park staff
- guided activities presented by Park staff and Bininj in the dry season
- commercial tour operations.

Educational resource materials are available for students and teachers.

Tourism industry seminars are conducted to enable tour guides and other people from the tourism industry to learn about Park values, management issues and practices. A detailed resource manual has been developed for tour operator use. Management of commercial tour operations is addressed in Section 6.14 of this Plan.

Many Bininj are involved in providing talks and activities for Park visitors. Most Bininj are employed on a casual basis by the Park to do this work, but some work with tour companies. The Director contracts out the operation of the Bowali Visitor Centre and the Warradjan Aboriginal Cultural Centre.

### Issues

- It is important that visitors, whether travelling independently or on a commercial tour, are able to access accurate information about the values and management of the Park and safe behaviour.



- Suggestions for the future management of the Bowali Visitor Centre include a booking centre for Aboriginal-guided tours and activities, an art gallery and interactive educational media.
- Provision of interpretive activities will be considered as part of the Tourism Master Plan (see Section 6.1, Recreational opportunities and tourism directions).
- Bininj would like more opportunities to conduct interpretive activities in the Park.
- Interpretive signs are required at a number of popular visitor sites to provide information about the values of the sites, orientation and safety.
- Interpretive and regulatory signs in the Park should meet national standards.

## **What we are going to do**

### ***Policy***

- 6.11.1 The following key messages will be promoted and interpreted in Kakadu:
- Kakadu is an Aboriginal place and a cultural landscape.
  - The cultural and natural heritage of the Park is of World Heritage significance.
  - Kakadu is managed jointly by Bininj and the Director.
  - Bininj welcome visitors to their country and would like visitors to learn about the cultural and natural heritage and joint management of the Park.
  - Bininj and the Director care about visitor safety and would like visitors and tour guides to take good care of their own and other people's safety while they are in Kakadu.
  - Kakadu changes greatly through the seasons and offers different experiences in each season.

### ***Actions***

- 6.11.2 Deliver a range of up-to-date information and interpretation programs to visitors, either directly or through Aboriginal business enterprises.
- 6.11.3 Regularly review Park information and interpretation programs and materials to ensure they are consistent with the above key messages and effectively reach target audiences.
- 6.11.4 Review the operations of the Bowali Visitor Centre. Consider and, where appropriate, implement options for different or additional facilities and services.
- 6.11.5 Identify opportunities to increase employment, training and business enterprises for Bininj to provide information and interpretation programs to visitors.
- 6.11.6 Provide information about the Park to tour operators and guides on a regular basis, through methods such as seminars, newsletters, notices, and industry meetings.
- 6.11.7 Prepare guidelines for the development and installation of signs in accordance with national standards and legislation.

## 6.12 Promotion and marketing

### Our aim

Promotion and marketing of Kakadu presents accurate and appropriate information and images.

### Measuring how well we are meeting our aim

- Level of satisfaction of the Board with messages in various media about Kakadu
- Number of promotional and marketing programs developed in collaboration with external agencies

### Background

Strategic promotion, marketing and media coverage can influence visitor awareness levels, numbers, length of stay and levels of satisfaction. Accurate promotion also helps to give people realistic expectations of their visit to the Park.

Promotion and media coverage can help the Board to communicate its messages to Park visitors and the general public and assist with gaining public support for the Park and, more generally, for the conservation of natural and cultural heritage.

The Park provides information and assistance to visiting journalists, professional photographers and film crews (see Section 6.13, Filming, photography and audio recording).

The Northern Territory Tourist Commission, regional tourism associations and other members of the tourism industry are major promoters and marketers of Kakadu as a major visitor destination. Conservation groups, researchers, professional photographers and filmmakers have also made the name and images of Kakadu and aspects of its natural and cultural heritage well known nationally and internationally.

### Issues

- The use of culturally inappropriate images and other messages and promotion that create unrealistic expectations or give inappropriate information is of considerable concern to Bininj. It has the potential to create challenges for Park management, and the potential for visitor dissatisfaction with their Kakadu experience.
- It is important that the promotion and marketing of the Park and use of the media are managed strategically and in collaboration with other stakeholders such as the tourism industry and other Northern Territory and Australian government agencies.
- The tourism industry needs sufficient time to change information in its promotional materials when there are changes to visitor management in the Park that may affect tour operations.

### What we are going to do

#### *Policies*

- 6.12.1 The Director and the Board will promote and market the Park in accordance with the Shared Tourism Vision and key messages determined by the Board (see Section 6.11, Visitor information, education and interpretation).

- 6.12.2 The Director will inform the tourism industry as soon as possible when changes are made to visitor management in the Park that will affect tourism products and their promotion.

### **Actions**

- 6.12.3 As a high priority the Board will promote elements of the Shared Tourism Vision.
- 6.12.4 Develop and implement a cooperative promotion and marketing strategy with the tourism industry and Northern Territory and Australian governments. This strategy will seek to increase the involvement of traditional owners, develop advertising campaigns, and contain guidelines on the use of appropriate information, images and messages about Kakadu.

## **6.13 Filming, photography and audio recording**

### **Our aim**

The World Heritage values of the Park and joint management practices are appropriately promoted through commercial filming, photography and audio recording.

### **Measuring how well we are meeting our aim**

- Extent to which the World Heritage values of the Park are appropriately promoted
- Level of Bininj involvement in the management of filming, photography and audio recording

### **Background**

Each year many people from Australia and overseas seek to carry out commercial filming, photography and audio recording in Kakadu. Imagery and sound materials are used for the production of documentaries about the cultural and natural significance of the Park, tourism and travel promotion materials, reference books and other publications. In addition, commercial media use images and sound in news reports about the Park.

Under s.354(1) of the EPBC Act commercial filming, photography and audio recording can only be carried on in accordance with this Plan. Regulation 12.24 of the EPBC Regulations allows the Director to place restrictions on image capture in the Park. Regulation 12.38 prohibits use of captured images of the Park to derive commercial gain.

### **Issues**

- It is important to ensure that people engaged in commercial image capture and use are aware of rules about capturing and using images and the need to record appropriate imagery that promotes the values of the Park and is consistent with the key interpretive messages developed by the Board (see Section 6.11, Visitor information, education and interpretation).
- There are many Kakadu images held in commercial film and photo libraries. Some of these images were captured before the activity was regulated, or without authorisation, and include areas that are not publicly accessible due to their cultural significance.
- Opportunities need to be available for Bininj who would like to be involved in managing commercial filming and photography.

## **What we are going to do**

### ***Policies***

- 6.13.1 Commercial filming, photography and audio recording may be carried on in the Park, and images of the Park may be used for commercial gain, in accordance with:
- guidelines approved by the Board
  - a permit issued by the Director or other authorisation arrangements approved by the Board.
- 6.13.2 Bininj will be consulted in accordance with consultation guidelines (see Section 4.1) before permits are issued for commercial filming, photography or sound recording.
- 6.13.3 The Director will support and actively encourage Bininj to be involved in managing commercial filming, photography and audio recording in the Park. This may include:
- supervising film, photography and audio recording crews
  - providing contract commercial filming, photography and audio recording services
  - supporting the development of commercial opportunities between Bininj and commercial film and photography crews.

### ***Actions***

- 6.13.4 Develop guidelines for the conduct and management of commercial filming, photography and audio recording in consultation with the Australian Institute of Professional Photographers.
- 6.13.5 Encourage film and photo libraries to withdraw inappropriate imagery of the Park, and encourage publishers to replace inappropriate images when reprinting books.

## **6.14 Commercial tour activities**

### **Our aim**

A range of commercial tour activities provides rewarding experiences for visitors and provides benefits to Bininj while protecting Bininj interests and minimising adverse impacts on the natural and cultural values of the Park.

### **Measuring how well we are meeting our aim**

- Extent to which Bininj benefit from tourism opportunities
- Level of visitor and tourism industry satisfaction with commercial tour opportunities

### **Background**

Well managed commercial tour operations help visitors to experience, enjoy and learn about the Park in a sustainable manner while providing an important contribution to the local and regional economies. Between 40–60 per cent of visitors to Kakadu, depending on the season, visit the Park with commercial tour operators. The majority of these visitors are from overseas. In addition, many independent travellers participate in boat cruises, scenic flights and other commercial tours while in Kakadu.

Under s.354(1) of the EPBC Act commercial tour operations can only be carried on in accordance with this Plan. Commercial tour operators must also comply with relevant Northern Territory legislation eg licensing of fishing tour operators and registration of tour vehicles. Fees for commercial tour permits required by this Plan are set out in the EPBC Regulations. Under the 4th Plan, permits for standard land-based tours were issued on an annual basis. Permit conditions were substantially revised during the life of the 4th Plan in consultation with the Kakadu Tourism Consultative Committee.

Under the 4th Plan limits were placed on the number of permits available for certain types of commercial tour operations. Permits were issued for these specialised activities for up to five years through a competitive application process.

Under the 4th Plan the following commercial tours were available:

- Standard land-based tours including coach tours and budget to luxury 4WD tours. No limits were placed on the number of permits that could be issued or the length of stay in the Park.
- Boat tours – one permit was available for each of the South Alligator River, Yellow Water and East Alligator River. These permits were restricted to relevant organisations or Bininj.
- Fishing tours – up to 15 permits were available. One permit was available to operate on Yellow Water and was operated by a Bininj enterprise.
- Safari camps – two safari camp permits were available each for Gunlom, Mardugal, Muirella Park and Merl campgrounds, and one for Jim Jim campground (a total of nine permits).
- Bushwalking tours – one permit was available for conducting regular bushwalking tours, and two permits were available for occasional tours.
- Tours to limited access or exclusive use areas – some sites are particularly sensitive to large numbers of visitors or may be areas Bininj wish to have greater access to. These sites may provide visitors travelling with a commercial tour with an exclusive, remote experience. During the life of the 4th Plan, permits for such tours were available to operate at Jarrangbarnmi (Koolpin Gorge).

A number of commercial tour activities are also undertaken by Bininj and Bininj organisations. The Regulations generally provide for exemption from permit fees for such activities.

Specific management guidelines have been introduced or proposed for some visitor destinations that are relatively small and environmentally or culturally sensitive. These guidelines include setting limits on the number of visitors or tour operators that can access or camp in these areas. Some areas have been set aside for the use of independent travellers. During the life of the 4th Plan, a number of sites were not available for use by commercial tours and others had restricted access. A small number of local tour operators have negotiated benefit-sharing agreements with Bininj through the NLC under which tour groups gain access to areas that are generally not open to the public.

The five-year allocation period of the special permits referred to above has been extended to 31 March 2008 to allow for review of the future management of commercial activities in consultation with the tourism industry, and to ensure that the Shared Tourism Vision and accreditation issues are taken into account.

The lease agreements require the Director to implement an induction scheme for tour operators and their guides. Tourism industry seminars are conducted to provide information about the cultural and natural heritage of the Park and its management. To date, attendance of tour guides at the seminars has not been compulsory.

In 2005, the Board endorsed the introduction of compulsory entry-level tour guide training that can be delivered flexibly, eg through e-learning, in addition to the voluntary tourism industry seminars. The training will be based on core competencies related to the interpretation of cultural and natural values, minimising visitor impact and understanding permit conditions. The Board has also agreed to encourage, through provision of incentives, the adoption by tour operators of voluntary accreditation. Bininj have identified cross-cultural training as an essential component of any tour guide training scheme.

The Shared Tourism Vision (see Section 6.1, Recreational opportunities and tourism directions) establishes future directions for management of tourism. A Tourism Master Plan will be developed to consider the spectrum of visitor experiences and tourism opportunities in the Park and how to increase benefits flowing to Bininj from tourism.

### **Issues**

- The key management challenge is to optimise commercial tourism opportunities in ways that protect and present the unique characteristics of the Park and are consistent with, and respect, Bininj aspirations for their country, including improving benefits Bininj receive from tourism and ensuring that management of tourism is efficient and effective.
- Opportunities need to be available for Bininj who are interested in operating commercial tour activities in the Park, either as Bininj enterprises or joint ventures.
- To assist with planning and formulation of sound business investment decisions, commercial tour operators seek long-term certainty about access to the Park and permit conditions and charges, advance notice about any changes and longer permit periods.
- To date, there has been no limit set on the number of permits that may be issued for standard land-based tours.
- It is important that all commercial tour activities are carefully managed to reduce the potential for environmental impacts and to ensure visitor safety.

### **What we are going to do**

#### ***Policies***

- 6.14.1 Commercial tour operations may be undertaken in the Park in accordance with a permit issued by the Director.
- 6.14.2 A range of commercial tour activities will be provided for. These must be consistent with the Vision and Guiding Principles of this Plan, the Shared Tourism Vision principles, the Tourism Master Plan (see Section 6.1 of this Plan) and key interpretive messages for the Park (see Section 6.11).
- 6.14.3 All commercial tour activities will continue to be managed in accordance with arrangements in place at the commencement of this Plan until reviewed by the Board following consultation with the tourism industry.

- 6.14.4 Permits for standard land-based and specialised tour activities allocated when this Plan commences will remain valid until 31 March 2008 subject to annual review.
- 6.14.5 Commencing at a time to be agreed with the tourism industry, tour guides will be required to complete compulsory entry-level training before being permitted to operate in the Park. The Director will encourage tour operators to take up industry-based accreditation. Consideration will be given to the introduction of incentives to encourage the uptake of accreditation, such as extended permit tenure and exclusive or restricted access to sites or types of activities.
- 6.14.6 Some tour permits will be reserved for enterprises that Bininj own or part-own or where legally binding employment and/or benefit-sharing arrangements are in place between the company and Bininj. Permits for powered boat tours will be reserved for these enterprises. Some areas in the Park may also be reserved for enterprises owned or part-owned by Bininj.
- 6.14.7 The Director will review commercial tour permit conditions at least every two years.
- 6.14.8 Night-time boat tours will generally not be permitted unless approved by the Board.
- 6.14.9 Land-based spotlighting activities will generally not be permitted unless approved by the Board.

### ***Actions***

- 6.14.10 In consultation with Bininj and the tourism industry, undertake a review of management of standard land-based and specialised commercial tour permits. The review will be consistent with the Shared Vision Principles and consider amongst other things:
  - limits on the number of permits or visitor numbers, and conditions that apply, for each activity type and identified visitor area
  - the tenure of each type of permit
  - permit fees
  - type of competitive application process applicable eg public tendering, auction or other open special selection processes
  - activity types or permits that are reserved for Bininj enterprises, and assistance required by Bininj in developing their capacity to pursue commercial tourism opportunities
  - management of exclusive access permits
  - monitoring criteria eg environmental impacts, numbers of visitors, levels of visitor satisfaction.
- 6.14.11 Following the review, implement any recommendations approved by the Board in consultation with the tourism industry.

## 6.15 Commercial accommodation

### Our aim

A range of commercial accommodation is provided consistent with protecting the values of the Park and providing benefits to Bininj.

### Measuring how well we are meeting our aim

- Level of visitor satisfaction with the range of commercial accommodation available
- Extent to which Bininj benefit from commercial accommodation opportunities
- Extent to which impacts, including cumulative impacts, from commercial accommodation are within acceptable levels

### Background

Darwin and Katherine are the major accommodation centres in the vicinity of Kakadu National Park. Within the Park there are several commercial developments offering various types of accommodation at a wide range of prices.

Three Aboriginal organisations currently own or have interests in commercial accommodation in or adjacent to Kakadu.

The Director may grant leases, subleases and licences to use and occupy land in the Park for the purpose of commercial accommodation only in accordance with this Plan (s.358 EPBC Act).

### Issues

- The quality and range of accommodation in the Park influences the quality of visitor experiences and levels of visitor satisfaction.
- Accommodation facilities, if not carefully planned, can have a significant impact on the Park. Supporting infrastructure such as water, sewerage, access roads, power and staff accommodation can all affect the surrounding environment. It is important to ensure that potential short- and longer-term cultural and environmental impacts associated with commercial accommodation developments are minimised.
- Bininj would like to be involved in and derive benefits from commercial accommodation on their land including financial benefits, employment and training opportunities.

### What we are going to do

#### *Policies*

- 6.15.1 Commercial accommodation may be established in the Park on areas occupied under a lease, sublease or licence granted by the Director with the approval of the Board, consistent with the Shared Tourism Vision principles, and as identified in the Tourism Master Plan.
- 6.15.2 Proposals for the development of commercial accommodation will be considered in accordance with Sections 8.1, Capital works and infrastructure, 8.3, Assessment of proposals, and 8.5, Leases, licences and associated occupancy issues.



## 7. Stakeholders and partnerships

Kakadu plays an important role in the broader region and there are many people who have an interest in the management of Kakadu. It is important to have good working relations with these people and organisations for the effective management of the Park. The Board and Director also have responsibilities to ensure that Jabiru is managed well, has minimal impact on the Park and that the wishes of the traditional owners of the land on which Jabiru is established, the Mirarr people, are respected.

### 7.1 Jabiru

#### Our aim

The sustainable development of Jabiru is provided for, while protecting the natural, cultural and World Heritage values of the Park, and the interests of traditional owners and other relevant Aboriginals, and without the town impacting on the Director's resources.

#### Measuring how well we are meeting our aim

- Level of satisfaction of Mirarr, other Bininj, and other stakeholders with the development and management of Jabiru
- Extent to which impacts on the Park environment from Jabiru are within acceptable levels
- Level of compliance with lease conditions

#### Background

##### *Location and tenure*

The Jabiru township is located in the north-east of Kakadu on an area of about 13 square kilometres. The town is adjoined to the east and south by NT Portion 2273, an area of about 55 square kilometres; and in the north-west by NT Portion 2271, an area of only about five hectares. All of this land is part of the Park. Title to the land is vested in the Director.

The township site is leased by the Director to the Jabiru Town Development Authority (JTDA) which is established by the *Jabiru Town Development Act* (NT). The lease was granted in 1981 for 40 years. The JTDA is responsible for developing, maintaining and managing the town and grants subleases for individual lots for residential and business purposes. The town is managed by the Jabiru Town Council (also established by the *Jabiru Town Development Act*) which performs functions on behalf of the JTDA.

The lease places a number of obligations on the JTDA, including:

- to use and manage the town in accordance with all relevant laws (clause 3)
- to ensure all buildings, structures and other improvements in the town are kept in good repair, order and condition (clause 12)
- to keep the town in a clean and sanitary condition and free from rubbish or other offensive matter (clause 13)

- to ensure compliance with environmental requirements set out in documents annexed to the lease (clause 14).

Reflecting the original closed nature of the town (see below, Establishment and development of Jabiru), the lease (clause 2) limits the persons that the JTDA may grant subleases to. They are persons who are:

- residents, or are about to become residents, of the town
- conducting business in or about the town
- approved by the JTDA and the Director
- or
- conducting mining operations within the Alligator Rivers Region.

The majority of subleases in the town are held by Energy Resources Australia (ERA), the Northern Territory Government or the Director. Others are held by local businesses and organisations (including bodies owned by and representing Mirarr and other Bininj).

The lease (clause 4) provides that the Director may grant licences over Park land outside the town site for the purpose of constructing roads and related works, the discharge of water, sewerage and water supply facilities, and electricity and telecommunications facilities reasonably required for use in connection with the town. Some essential services infrastructure, such as power and water, is established in these areas, including NT Portions 2271 and 2273.

The lease also provides (clause 5) that the Director may grant licences to the JTDA in relation to NT Portions 2271 and 2273 for use as recreational areas by residents of the town. Such licences have not been sought to date. The Jabiru Gun Club is situated on NT Portion 2273, and parts of the Jabiru Golf Course extend onto this land.

The lease requires (clause 10) that when it comes to an end (for whatever reason) the Director, the JTDA and representatives of the Australian and Northern Territory governments must determine the rehabilitation measures that are required and how the cost will be met.

### ***Jabiru and the Mirarr people***

At the time of preparing this Plan, the Jabiru township and NT Portions 2271 and 2273 were not Aboriginal land. Mirarr are, however, acknowledged as the traditional Aboriginal owners of the land under Aboriginal tradition. They aspire to be formally recognised as the traditional owners, in particular through the land becoming Aboriginal land under the Land Rights Act.

The land that surrounds the Jabiru township and NT Portions 2271 and 2273 (including the Ranger Project Area and the Jabiluka mining lease, which are not part of the Park) is Aboriginal land under the Land Rights Act. The land is owned by the Kakadu and Jabiluka Aboriginal Land Trusts for the benefit of its traditional Aboriginal owners, who include the Mirarr people.

The Ranger Uranium Environmental Inquiry (known as the Ranger Inquiry or Fox Inquiry, discussed below under Establishment and development of Jabiru) found that the Mirarr were the traditional Aboriginal owners of the part of the Park that includes the town site and NT Portions 2271 and 2273. These areas were not, however, included in the areas of the Park that were specified in Schedule 1 to the Land Rights Act to be granted as Aboriginal land, reflecting

the recommendations of the Ranger Inquiry. The town site was not later included in a land claim application under the Land Rights Act as the Act excluded claims being made over land in towns. At the time of preparing this Plan, NT Portions 2271 and 2273 were, however, subject to a land claim (Kakadu Region Land Claim).

Jabiru and NT Portions 2271 and 2273 are subject to an application by the Mirarr people for a determination of native title under the *Native Title Act 1993*. A determination whether native title rights and interests exist in relation to Jabiru has not been made at the time of preparation of this Plan (although the existence of native title does not depend upon a determination being made under the Native Title Act). The application was referred to the National Native Title Tribunal for mediation in 2005. That process is continuing at the time of preparation of this Plan.

Development proposals, or proposals involving changes in property interests in Jabiru, may involve the doing of an act that would 'affect' any native title that may exist in Jabiru or NT Portions 2271 or 2273 and be a 'future act' within the meaning of the Native Title Act. An act will affect native title if it extinguishes native title rights and interests or is otherwise inconsistent (either wholly or partly) with their continued existence, enjoyment or exercise. A future act is invalid to the extent that it affects native title, unless it is done in accordance with the future act regime in the Native Title Act.

### ***Establishment and development of Jabiru***

Jabiru was established in 1978 in line with recommendations of the Ranger Inquiry held in 1976–77 (Fox et al. 1977). The Ranger Inquiry commissioners rejected proposals that Jabiru should be a large regional centre. They were particularly concerned that the township should be managed to minimise social impacts on Aboriginal people in the region and environmental impacts on the surrounding Park environment and recommended that Jabiru be a closed town to provide housing for people directly or indirectly associated with uranium mining in the Alligator Rivers Region and government officers.

In announcing its decision about the Ranger Inquiry, the government of the day stated that 'by ensuring that Aboriginals are involved in the planning of the town from the beginning, the government intends to ensure that the mistakes of the past, which have led to Aboriginals living as fringe dwellers in towns on their own traditional lands, are not repeated here'.

The government accepted the Ranger Inquiry recommendations in relation to Jabiru and directed that the town be developed according to the following principles:

- the site be within Kakadu National Park on land excluded from Aboriginal land grants
- the town be 'closed', catering only for the mining companies, agents and government officials
- the population of the town not to be more than 3500
- the principles for designing the town be set out in the management plan for Kakadu National Park
- the area of the town be leased from the Director of National Parks and Wildlife (now Director of National Parks)
- the NLC be consulted in the proposals for the town.

Because the town was principally established to house people associated with uranium mining in the region, the operator of the Ranger uranium mine was responsible for constructing, and has continued to maintain, a significant proportion of the town's essential infrastructure. This includes some infrastructure located within NT Portions 2271 or 2273. The Northern Territory Government also contributed to the cost of town infrastructure. In 1986, the Northern Territory Government and ERA (operator of the Ranger mine) entered into a cost sharing agreement to provide mechanisms for each to recoup their costs for the construction of Jabiru from 'new entrants'.

Although established as a closed town, to be lived in by people connected with mining operations, government services and service industries, from the mid 1980s Jabiru developed a role as a tourism service centre as visitors to the Park began to use facilities in the town. In 1988 the Gagudju Crocodile Hotel was opened in Jabiru and later a caravan park and other visitor facilities were developed. At the time of preparing this Plan, Jabiru has a population of about 1100 people, at least half of whom are engaged in employment relating to uranium mining, and their dependents. The rest of the population is made up of those who work in the Park, the tourism industry, Aboriginal organisations, government services and local businesses, and their dependents.

ERA provides domestic power for the town. It provides access to and maintains the Jabiru airport and has constructed a number of community facilities. ERA is also the major owner of housing accommodation in Jabiru.

### ***Impact of the town***

Activities in Jabiru have the potential to cause significant adverse environmental impacts on the surrounding area of the Park. Residents have, for example, unknowingly introduced a range of weeds and pests (such as big-headed ants) to Jabiru and the surrounding area. It is essential to maintain and improve measures for managing weeds, domestic animals, feral animals, sewage, waste, chemicals, fire and water in Jabiru, and the introduction of animals into Jabiru.

As noted earlier the JTDA is required by the town lease to keep the town in a clean and sanitary condition and free from rubbish or other offensive matter and to ensure compliance with environmental requirements annexed to the lease.

The Jabiru Town Council (JTC) monitors groundwater quality and consumption within Jabiru. It also monitors the quality of waste effluent that is treated and disposed of onto the Jabiru Golf Course or into Barilil Creek catchment by spray irrigation.

The presence of Jabiru has had a significant impact on Aboriginal people, lifestyles and traditions in the region. There are major challenges for all people and organisations in the region to minimise the harmful impacts and maximise the beneficial impacts of the town on Aboriginal people.

There are also social issues associated with Jabiru being relatively small and remote, and residents' need for recreational services and facilities.

### ***Legal requirements governing the town***

The town lease (clause 3) requires the JTDA to comply with and, to the extent the JTDA is reasonably able to do so, to require compliance by others with:

- the EPBC Act, management plans for the Park, and the EPBC Regulations, so far as they relate to the town
- a town plan approved by the Director
- the *Jabiru Town Development Act* and other laws that apply in the town.

Section 388 of the EPBC Act also requires Jabiru to be developed in accordance with the management plan for the Park and a town plan prepared and approved in accordance with the EPBC Regulations. The section also provides that buildings or structures may only be constructed, altered or demolished in accordance with the management plan and town plan.

As noted in Section 2.4 of this Plan, s.354(1) of the Act prohibits certain actions being taken in the Park (including Jabiru) except in accordance with this Plan, including actions that affect members of native species; carrying on an excavation, or building or other works; and commercial activities. Section 358 of the Act precludes the Director from granting leases, subleases and licences in the Park (including Jabiru) except in accordance with the management plan.

An action (such as a new development) in Jabiru that is likely to have a significant impact on the environment will require assessment and approval under the EPBC Act (see Section 2.4 of this Plan).

Section 389 of the Act requires this Plan to include provisions for and in relation to the site and general purposes of the town; the terms and conditions of the town lease; and the purposes of any zones into which the township is to be divided. Section 389 also requires the town plan to deal with construction or development of the town, and sets out particular matters that must be addressed in the town plan, including any matters that are specified by the Park management plan.

Section 2.4 of this Plan notes that the EPBC Regulations regulate a range of activities in Commonwealth reserves. Not all of these Regulations apply in Jabiru. Regulation 12.07 prescribes that a number of the Regulations do not apply. The Regulations that do apply in the town at the time of preparing this Plan include:

- r.12.15 – use of poisonous substances (including pesticides and herbicides)
- r.12.19 – taking animals into Commonwealth reserves
- r.12.20 – taking plants into Commonwealth reserves
- r.12.21 – cultivating plants in Commonwealth reserves
- r.12.37 – sale of liquor.

Regulation 12.15 prohibits the use or introduction of a pesticide, herbicide or other poisonous substance, except reasonable use for a domestic purpose.

Regulation 12.19 prohibits a person causing or allowing an animal owned by them, or in their charge, to enter or remain in the Park, except for a guide dog used by a blind person, a hearing dog used by a deaf person, or an assistance animal used by a person with a disability.

Regulation 12.20 prohibits plants (other than food) being taken into or possessed in the Park. The prohibition does not prevent plants being taken into Jabiru if they are included on a list given by the Director to the JTDA and Jabiru residents. Regulation 12.21 prohibits cultivating or propagating a plant unless it is a native plant included in a list given by the Director to the JTDA (see also Section 5.11 of this Plan). Under r.12.22 the Director can require removal of plants that are cultivated or propagated contrary to r.12.21, and a warden or ranger may remove or destroy a plant if such a direction is not complied with.

Regulation 12.37 prohibits the sale of liquor in the Park. At the time of preparing this Plan the Director had issued permits for the purposes of r.12.37 in relation to the Jabiru Sports and Social Club, Jabiru Golf Club, the premises currently known as the Kakadu Lodge and Caravan Park, and the premises currently known as the Gagadju Crocodile Hotel.

The *Planning Act* and other Northern Territory laws apply in Jabiru (so long as they are not inconsistent with the EPBC Act, this Plan and the EPBC Regulations). The Jabiru Town Plan was made in 1981 under the *Planning Act* in force at the time, and was approved by the Director in accordance with the then National Parks and Wildlife Regulations. From 16 July 2000, the town plan has continued as if it had been made under the EPBC Act (pursuant to the *Environmental Reform (Consequential Provisions) Act 1999*). The EPBC Regulations (rr.11.09 to 11.13) set out requirements for preparing, approving, revoking and amending a town plan.

The Jabiru Town Plan divides Jabiru into a number of zones, and provides that (except for use of land as a public street or public park, or work for safety purposes) land may only be used or developed with the consent of the consent authority under the Planning Act, for a purpose that is specified by the town plan for the relevant zone. At the time of preparing this Plan 'development' is defined by the Planning Act as:

- establishing or changing the use of land
- subdividing or consolidating parcels of land
- doing works on land such as:
  - excavating or land-filling
  - clearing vegetation
  - constructing buildings, roads, drains, hardstand car parking or landscaping
  - any other operation that affects the physical character of land.

At the time of preparing this Plan the consent authority is the Minister responsible for the Planning Act. Applications for development consent must be made by the landowner ie for Jabiru, the Director.

Under the existing legal framework for Jabiru the Director's agreement is therefore required for a range of matters, including:

- changes to the town lease, such as extension of the lease beyond 2021 or changes to the persons that the JTDA may grant subleases to (because the Director is the lessor)
- changes to the town plan or the making of a new town plan (because the Director's approval is required under the EPBC Act and Regulations)
- applications for consent for 'development' under the *Planning Act* (because the Director is the owner of the land, the *Planning Act* requires the Director to be the applicant for development consent).

The previous (4th) Management Plan also required the Director's approval to be obtained for changes in land use of subleases eg from residential to commercial, and for construction or expansion of tourism or other commercial or community infrastructure developments, because of their potential environmental impacts.

### ***The future of Jabiru***

At the time of preparing this Plan, it is expected that mining operations at Ranger are likely to cease by about 2014 (ie about the time this Plan will cease to have effect). The consequent downsizing of ERA's operations, with the departure of the major private employer and provider of services, has significant implications for the future of Jabiru.

Expiry of the town lease in 2021 also impacts on the future of the town.

It is possible that the town could develop as a regional administrative centre or have a more limited role as an accommodation and service centre for the Park. If alternative sources of employment do not emerge following the expected withdrawal of ERA, the population of Jabiru will be substantially less, mainly Park employees, remaining service industries and Bininj. A smaller population has the potential to lead to a reduction in the level of government services in the town.

Closure of the Ranger mine and downsizing of Jabiru, and the possible end of the town lease, have the potential to impact on surrounding areas of the Park unless these areas are appropriately rehabilitated and managed.

All of these issues have the potential to impact on the Director's resources for managing the Park.

The recommendations of the Kakadu Region Social Impact Study, established by the Australian Government in 1996 and reported on in 1997, included the need to:

- acknowledge the importance of recognising Jabiru as Aboriginal land and the corresponding need to safeguard existing commercial interests
- establish a community consultation program to:
  - provide information on governance options/arrangements
  - develop a vision for Jabiru and the region
  - discuss options for achieving Aboriginal ownership of land in Jabiru/extension of headlease.

The Australian Government supported this latter recommendation in principle in its response presented to the World Heritage Committee meeting in Kyoto in June 2000. The response said, in part:

*...support in principle...the future of Jabiru needs to be reassessed taking into account the aspirations of Aboriginal people, the needs of the mining and other industries (eg tourism), commercial interests and any potential impacts on the surrounding park. The Commonwealth will seek the cooperation of the Northern Territory Government to jointly sponsor the proposed community consultation program as a necessary first step to clarifying future options and a vision for Jabiru and the region.*

At the time of preparing this Plan, discussions between the key stakeholders have identified a number of possible options for future land management and governance for Jabiru that would assist in the economic development of the town, preserve the natural and cultural values of the Park, and recognise the status of the Mirarr as traditional owners.

## **Issues**

- A clear vision for the future of Jabiru and its economic sustainability following closure of the Ranger mine is needed.
- It is the aspiration of the Mirarr people to be formally recognised as the owners of the Jabiru town land under Aboriginal tradition.
- There is a need to ensure impacts on the natural and cultural values of the Park are minimised.
- The adverse social impacts of the town on Bininj and town residents need to be minimised, and the interests of Mirarr and other Bininj affected by the town protected.
- The future development of Jabiru following closure of the Ranger mine and expected withdrawal of ERA from the town needs to be planned for now.
- The town lease expires in 2021.
- There is a need to review the town plan and improve the development approval process for the town.
- The town should not impact on the Director's resources to the potential detriment of other areas of the Park.
- The interests of other stakeholders in the town, such as residents and local businesses, and regional interests need to be considered.

## **What we are going to do**

### ***Policies***

- 7.1.1 The Board and the Director recognise that by Aboriginal tradition the Mirarr people are the traditional Aboriginal owners of the land in and around Jabiru and have primary responsibility for and rights relating to that land as found by the Ranger Inquiry, and will consult and seek to reach agreement with Mirarr in decision-making relating to Jabiru.



- 7.1.2 Subject to any changes implemented in accordance with this Plan:
- Jabiru may continue to be developed on its current site for residential, commercial and community purposes in accordance with this Plan and the existing town plan
  - the terms and conditions of the town lease will be maintained
  - the location and purposes of zones in the town will be as specified in the existing town plan.
- 7.1.3 A new town plan should be prepared by the Northern Territory Government, in conjunction with the JTDA.
- 7.1.4 The Director may grant a new town lease and licences associated with the town, and approve a new town plan.
- 7.1.5 The Director will work with stakeholders to simplify the development approval process. Subject to any new process being agreed and implemented the following actions require the Director's approval, which may be given subject to conditions:
- all applications for consent for development under the Planning Act, unless the JTDA is authorized under Policy 7.1.6 to make the application on behalf of the Director
  - any changes in land use of subleases eg from residential to commercial
  - significant construction or expansion of existing tourism or other commercial or community infrastructure developments.
- 7.1.6 The Director may, with the approval of the Board, authorise the JTDA to make applications for development consent under the Planning Act on behalf of the Director for all or certain types of activities.

Note: Subject to any changes to the existing legal framework for the town the Director's approval is also necessary for:

- changes to the town lease, such as extension of the lease beyond 2021 or changes to the persons that the JTDA may grant subleases to (because the Director is the lessor)
- changes to the town plan or the making of a new town plan (because the Director's approval is required under the EPBC Act and Regulations).

- 7.1.7 Before making any decisions required in relation to the town under the preceding prescriptions the Director will:
- consult and, if possible, reach agreement with the Mirarr people
  - consult with and have regard to the views of other relevant Bininj and the NLC
  - consult with the JTDA and the JTC (or their successors)
  - refer the proposal to the Board for consideration and advice
- and will only approve or proceed with a proposed action if it will provide more benefits than costs to the natural and cultural environment of the Park, to Bininj, and to the appropriate use, appreciation and enjoyment of the Park by the public.

- 7.1.8 The town must be managed by the JTDA in accordance with the lease.
- 7.1.9 The JTC (or JTDA) should regularly monitor waste water discharges in and from the town, and water supply quality, and provide reports to the Director.
- 7.1.10 Environment protection measures, including waste management, must be observed and implemented to a high standard.
- 7.1.11 Areas that are no longer required for use in the town, as agreed between the Director and the JTDA, must be rehabilitated to an appropriate standard.
- 7.1.12 The Director and the Board will engage in initiatives aimed at minimising the adverse social impacts of Jabiru and developing beneficial outcomes for Aboriginal people, lifestyles and traditions.
- 7.1.13 The Director and the Board will work with the community of Jabiru to improve the way the town reflects and enhances the World Heritage values of the Park.
- 7.1.14 The Director may issue permits and licences authorising recreational activities by Jabiru residents in areas adjoining the town.
- 7.1.15 The Mirarr native title application in relation to Jabiru and NT Portions 2271 and 2273, and the possibility of this land becoming Aboriginal land under the Land Rights Act, should be resolved by consent if possible.
- 7.1.16 Appropriate functions and powers of the Director under the EPBC Regulations should be delegated to the JTC (or any successor to the functions of the JTC).

*Actions covered by s.354(1) of the EPBC Act*

- 7.1.17 The Director may take actions covered by s.354(1) of the EPBC Act in Jabiru where they are necessary for preserving or protecting the Park (or part of the Park) and its values, protecting or conserving biodiversity or heritage, protecting persons or property, or to address non-compliance with the town lease.
- 7.1.18 A person other than the Director may only kill, injure, take, trade, keep or move a member of a native species in Jabiru in accordance with a permit issued by the Director under the EPBC Regulations.
- 7.1.19 A person other than the Director may only damage heritage in Jabiru in accordance with a permit issued by the Director under the EPBC Regulations.
- 7.1.20 Subject to the following exceptions, and unless the Director's approval is required under Section 7.1.5 above (dealing with developments etc that require the Director's approval), a person may carry on an excavation, erect a building or other structures, or carry out other works in the town in accordance with relevant laws (and will not require a permit from the Director):
  - Excavations may be carried on as part of routine gardening activities, routine infrastructure maintenance (eg sewerage, storm water, telecommunication cables), but other excavations, including drilling bores, may only be carried on in accordance with a permit issued by the Director under the EPBC Regulations.

- The Director may determine that works, other than erecting a building or other structures, require a permit (because of their potential impacts).

7.1.21 Commercial activities may be carried on in Jabiru in accordance with the town lease and relevant laws without a permit or other approval from the Director. This prescription does not affect the requirements of Section 7.1.32 to 7.1.35 relating to the sale of liquor in the town.

*Use of pesticides, herbicides and other poisonous substances – r.12.15*

7.1.22 Unless the Director approves otherwise a person may only introduce or use pesticides, herbicides, or other poisonous substances in accordance with a permit issued by the Director.

Note: The prohibition in r.12.15 of the EPBC Regulations does not apply to reasonable use by a person for domestic purposes.

7.1.23 A permit will not be issued if the Director considers that the proposed activity is likely to have an adverse impact on the environment and/or human health.

*Bringing in and keeping animals – r.12.19*

7.1.24 The Director will provide information to Jabiru residents to encourage them not to introduce animals to the Park.

7.1.25 Cats must not be brought into or kept in Jabiru (and permits will not be issued).

7.1.26 Dogs may be brought into and kept in Jabiru in accordance with a permit issued by the Director under the EPBC Regulations. A maximum of two dogs may be kept at any residence.

7.1.27 Birds may only be brought into and kept in Jabiru in accordance with a permit issued by the Director. Permits will only be issued in exceptional circumstances.

7.1.28 Fish may only be brought into and kept in Jabiru in accordance with a permit issued by the Director. Permits will only be issued for fish native to the Magela Creek system. Permit conditions will include that fish must be kept in home aquaria, and must not be re-released into the wild.

7.1.29 Permits authorising other domestic animals, ie other than those referred to in Policies 7.1.26 to 7.1.28, to be brought into and kept in Jabiru will only be issued in exceptional circumstances and provided that the Director is satisfied there is minimal risk of adverse impacts on native species or ecosystems.

7.1.30 Non-domestic animals, including zoo or circus animals, must not be brought into the Park (and permits will not be issued).

7.1.31 The JTC (or any successor to its functions) will be responsible for catching and controlling escaped domestic dogs in the town.

### *Sale of liquor - r.12.37*

- 7.1.32 Liquor must not be sold in the town except in accordance with a permit issued by the Director under the EPBC Regulations and the Liquor Act (NT).
- 7.1.33 Permits to sell liquor will not be issued by the Director unless the proposed permittee holds a licence under the Liquor Act (NT).
- 7.1.34 A permit holder must not apply to vary a licence under the Liquor Act, or to vary the licence conditions, without first having obtained the approval of the Director.
- 7.1.35 In making decisions about liquor permits the Director will consult and have regard to the views of Bininj, the NLC, local Aboriginal associations and the body known as the Gunbang Action Group (or its successor).

### *Other activities covered by the EPBC Regulations*

- 7.1.36 Unless otherwise approved by the Director or another prescription (ie policy or action) in this Plan, the following activities may only be carried on in the town in accordance with a permit issued by the Director under the EPBC Regulations:
  - r.12.10 – scientific research
  - r.12.16 – introduction or removal of earth materials, and fossicking
  - r.12.26 – adventurous activities
  - r.12.58 – landing and taking off of aircraft.
- 7.1.37 Any other activities carried on in the town that are covered by the EPBC Regulations and not covered by another prescription in this Plan may be carried on in accordance with applicable laws and will not require a permit from the Director.

## **Actions**

### *Town lease*

- 7.1.38 The Director will monitor, and where necessary take appropriate measures to ensure, compliance with the town lease.
- 7.1.39 Without limiting 7.1.37 the Director will take all reasonable steps:
  - to have environment protection and waste management measures undertaken in Jabiru to a high standard
  - to have an environmental management plan for Jabiru developed, implemented, and regularly reviewed
  - to ensure regular environmental monitoring of Jabiru and its immediate surrounds
  - to have sewage and waste management in Jabiru reviewed, and necessary changes implemented as soon as possible
  - to ensure weed and feral animal management in the sewage irrigation area and waste dumps is properly addressed.

- 7.1.40 The Director will take all reasonable steps to reach agreement with key stakeholders, and to implement a shared vision for the long-term sustainable development of Jabiru.

#### *Bringing in and keeping animals – r.12.19*

- 7.1.41 The Director will delegate power to issue permits for the purposes of r.12.19 in relation to dogs to the JTC (or any successor to its functions). The delegation may be revoked.
- 7.1.42 The Director will control other feral animals, such as wild dog and dingo cross-breeds, cats and buffaloes, in the town.

#### *Introducing and growing plants*

- 7.1.43 The Director will provide information to Jabiru residents to encourage them not to introduce plants or allow weeds to spread.
- 7.1.44 The Director will maintain and regularly review a list of plants under r.12.20 that may be taken into and kept in Jabiru; and a list of plants under r.12.21 that may be cultivated or propagated in the town (see also Section 5.11 of this Plan).
- 7.1.45 The Director will encourage the development of a nursery in Jabiru, so that residents have a local source of garden plants. If a nursery is established the Director will consider whether other plants should be allowed to be introduced into the Park, and may vary or revoke the list of plants under r.12.20.
- 7.1.46 The Director will, so far as possible, implement, or ensure the JTDA implements, the actions listed in Section 5.11 of this Plan.

## **7.2 Neighbours, stakeholders and partnerships**

### **Our aim**

Cooperative relations and partnerships are developed and maintained with Park neighbours and stakeholders in a manner that focuses on promoting the joint management of the Park and achieving common management aims.

### **Measuring how well we are meeting our aim**

- Number of relevant formal and informal consultative bodies, including advisory, project, steering and consultative committees, on which the Park is represented

### **Background**

Regional neighbours and stakeholders include relevant Aboriginal organisations and regional communities and Australian and Northern Territory government departments and agencies; pastoral and agricultural properties; the JTC; ERA; community groups and organisations; and local leaseholders. The Director liaises and works with these neighbours and stakeholders on issues of common interest. Examples include Park membership on the West Arnhem Bushfire Committee; working with Northern Territory Government emergency services in relation to incident management operations, such as search and rescue; exchange of information with ERA and JTC about weed management issues; and liaison with neighbours in relation to fire management on the Park boundaries.

The Director also has cooperative relationships with a range of stakeholders and agencies that are based outside the Kakadu region including non-government organisations such as universities and other research organisations, Park user groups and Northern Territory and Australian government agencies. Many of these stakeholders and agencies have interests in, and/or skills and knowledge that can contribute to, the management of the Park. As a consequence, these stakeholders and agencies, in particular Northern Territory and Australian government agencies, play an essential role in the effective management of the Park.

Section 6 of this Plan outlines relationships and actions relating to tourism stakeholders.

### **Issues**

- Developing and maintaining relationships and partnerships with neighbours and stakeholders can increase support for Park management aims, help to manage issues of common interest and make the best use of available resources.

### **What we are going to do**

#### ***Policy***

- 7.2.1 The Board and the Director will further develop and maintain good working relationships with relevant stakeholders.

#### ***Actions***

- 7.2.2 The Board and Director will work with relevant Australian and Northern Territory government agencies, regional organisations, research organisations, Park user groups, non-government environmental organisations and other stakeholders and neighbours to promote a regional and partnership approach when dealing with issues affecting the management of the Park and the Kakadu region. To help do this the Board and Director may:
- seek representation on relevant advisory, project and steering committees
  - establish additional advisory, management and consultative committees
  - work with relevant regional stakeholders to take an integrated approach to regional landscape management and planning issues
  - contribute to regional programs and assist neighbours and stakeholders in a manner consistent with this Plan.
- 7.2.3 Park staff will work with relevant stakeholders, including local agencies, organisations, leaseholders and Aboriginal associations, to provide information for Park residents and neighbours to increase their awareness of Park management issues and aims.

## 8. Business management

Management of the Park needs to be done in ways that minimise impacts on Park values, in accordance with relevant legislation and in ways that protect Bininj interests. Park staff need to be sufficiently trained to respond to incidents such as search and rescue, and to carry out law enforcement activities. It is important that new proposals in the Park are properly assessed to make sure they do not have unacceptable impacts on Park values, Bininj interests and other issues like visitor safety and enjoyment. It is also important that Park management activities are monitored regularly to know whether we are getting the results we want.

### 8.1 Capital works and infrastructure

#### Our aim

Capital works and infrastructure are safe, functional and cost effective to construct and maintain and are developed and maintained in a manner that protects Park values.

#### Measuring how well we are meeting our aim

- Extent to which impacts from infrastructure on the Park environment are within acceptable levels
- Degree to which the asset maintenance system demonstrates cost effective asset management

#### Background

Capital works and infrastructure within the Park include Park management facilities (such as access roads and tracks, staff housing, bores, radio repeaters, district ranger stations, workshops and Park Headquarters) and visitor facilities (such as roads, walking tracks, campgrounds, signs, boat ramps, day use areas, the Bowali Visitor Centre and the Warradjan Aboriginal Cultural Centre).

Most of the capital works and infrastructure developments during the life of the previous (4th) Management Plan were associated with upgrading, maintaining or replacing these facilities. The Park's UHF radio network was replaced with a VHF network to improve performance and reliability, and emergency contact devices were installed at a number of remote visitor sites. The new Garnamarr campground was also established at Jim Jim Falls.

Capital works and infrastructure are established and maintained by government agencies, Aboriginal associations, and businesses at Jabiru.

Section 354(1) of the EPBC Act prohibits the Director and other persons carrying on an excavation, erecting a building or other structure, or carrying out works in the Park except in accordance with this Plan. Regulation 12.11 of the EPBC Regulations, which applies to works by third parties, operates subject to s.354(1) of the Act and this Plan.

#### Issues

- It is important to ensure that residents, staff and visitors are provided with safe, comfortable and functional facilities.

- Capital works and infrastructure need to be established and maintained in accordance with Australian Standards and with minimal levels of impact on Park values.
- Management programs and maintenance schedules need to be undertaken in a cost effective manner.

## **What we are going to do**

### ***Policies***

- 8.1.1 The Director may carry on an excavation, erect a building or other structure, or carry out works in the Park, including in relation to capital works and infrastructure.
- 8.1.2 Third parties may carry on an excavation, erect a building or other structure, or carry out works in the Park to develop and maintain capital works and infrastructure in accordance with Section 8.1 of this Plan, and:
- in accordance with a lease, sublease or licence granted by the Director (see Section 8.5)
  - in connection with Jabiru (see Section 7.1)
  - in connection with Bininj living areas (see Section 4.4)
- or
- in accordance with a permit or approval issued by the Director.
- 8.1.3 Decisions about capital works and infrastructure and other works will be made in accordance with Section 4.1, Making decisions and working together, and Section 8.3, Assessment of proposals.
- 8.1.4 New capital works and infrastructure, and alterations, renovations or significant repairs to existing capital works and infrastructure, must:
- as far as practicable incorporate good, cost effective environmental design, including efficient resource use
  - as far as practicable, use low maintenance designs and materials
  - comply with all relevant laws, standards, and codes of practice
  - as far as practicable provide access for all members of the public, including the physically impaired.
- 8.1.5 As far as practicable, new capital works and infrastructure will use existing roads and tracks.
- 8.1.6 Third parties who undertake capital works and infrastructure development and other works must meet the costs of any rehabilitation required as a result of the works.
- 8.1.7 Timber, including preservative treated pine, may be brought into the Park and used for construction purposes.
- 8.1.8 Unless replaced by a more effective network, the Park's VHF radio network will be maintained to a standard that provides reliable Park-wide radio coverage.



- 8.1.9 Existing emergency communication devices will be maintained at current visitor sites.
- 8.1.10 Additional emergency communications systems may be installed at other visitor sites if considered necessary and reasonably practicable to do so following risk and cost assessments.

### **Actions**

- 8.1.11 Develop and implement a capital works and infrastructure management and maintenance system. The system will aim to extend the cost effective life of assets, improve and maintain asset performance, and maintain infrastructure assets to a reasonable and safe standard.

## **8.2 Compliance and enforcement**

### **Our aim**

There is maximum compliance with relevant legislation as a result of effective education and enforcement programs.

### **Measuring how well we are meeting our aim**

- Trends in the number, severity and type of non-compliance incidents detected and reported
- Number of staff appropriately trained in compliance and enforcement

### **Background**

Encouraging compliance with relevant legislation is an important strategy for the protection of Park values, Park infrastructure, people's safety and the interests of Bininj. In particular, the Director is required to comply with provisions of the EPBC Act, this Plan, other relevant legislation and government policies, and the leases of Aboriginal land in the Park. In 2003, the Director endorsed the Parks Australia Compliance and Enforcement Manual, which sets out the broad guidelines and procedures for managing compliance issues in Commonwealth reserves.

Staff may be appointed by the Minister under the EPBC Act as rangers or wardens, and exercise the powers and functions conferred on them by the Act and the Regulations. In addition, all members and special members of the Australian Federal Police are ex officio wardens, and officers or employees of other Australian, state or territory government agencies may be appointed by the Minister as rangers or wardens. The Australian Government requires that investigating officers be trained to standards prescribed in the Commonwealth Fraud Control Guidelines. Rangers and wardens conduct monitoring and enforcement operations while on routine patrols and during specific, targeted programs. Park staff not appointed as wardens and rangers cannot exercise these powers but can encourage compliance with legislation through education to raise public awareness of appropriate behaviour.

Part 17 of the EPBC Regulations provides for permits to be issued, subject to conditions, for activities that are otherwise prohibited.

Northern Territory laws apply in the Park to the extent they can operate concurrently with the EPBC Act and Regulations and this Plan.

## **Issues**

- Effective compliance and enforcement requires appropriate resources and a strategic approach based on risk management principles.
- Exercise of enforcement powers by Park staff must comply with Australian Government policies, standards and guidelines.
- Wardens and rangers should be provided with ongoing training.
- Establishing and maintaining working relationships with other relevant compliance agencies can improve management of compliance issues that are of shared concern.

## **What we are going to do**

### ***Actions***

- 8.2.1 The Director and the Board will monitor the effectiveness of the EPBC Act and Regulations in relation to the Park and may recommend amendments to the Minister.
- 8.2.2 Provide ongoing compliance and law enforcement skills assessment and development for staff appointed, or likely to be appointed, as rangers and wardens.
- 8.2.3 Provide staff, interested Bininj and stakeholders with appropriate information about compliance and enforcement issues.
- 8.2.4 Develop and implement compliance and enforcement strategies and procedures for managing specific Park compliance issues. Strategies and procedures will be based on the Parks Australia Compliance and Enforcement Manual, other Parks Australia policies, Australian Government standards, legal requirements, risk management principles, and Board priorities.
- 8.2.5 Liaise and, where appropriate, work with other relevant agencies involved in compliance and enforcement. This may include entering into agreements, making arrangements for wardens to be appointed as law enforcement officers under relevant Northern Territory legislation, and appointing Northern Territory Government officers as wardens or rangers under the EPBC Act.

## **8.3 Assessment of proposals**

### **Our aim**

The likely impacts of proposed actions on Park values and Bininj interests are properly considered before decisions are made.

### **Measuring how well we are meeting our aim**

- Extent to which Park values and Bininj interests are protected from adverse impacts of approved actions
- Level of Bininj and proponent satisfaction with timeliness of the assessment process

## **Background**

Many activities proposed to be undertaken in the Park by the Director, Bininj and external stakeholders such as the tourism industry and business people need to have their potential impacts assessed before a decision can be made on whether the activity should go ahead. Impacts that need to be considered include impacts on the Park's natural and cultural values, and on Bininj.

Some activities proposed to be undertaken in the Park may be 'controlled actions' (see Section 2.4, Legislative context) and require assessment and approval by the Minister under the EPBC Act because they are likely to have a significant impact on a matter of national environmental significance (such as the Park's World Heritage values or Ramsar wetlands) or the environment generally. The EPBC Act defines the 'environment' as including:

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) natural and physical resources; and
- (c) the qualities and characteristics of locations, places and areas; and
- (d) heritage values of places; and
- (e) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b) or (c).

Proposed actions that do not trigger the assessment and approval provisions of the EPBC Act may still have impacts that require assessment before a decision can be made on whether the action should go ahead. Proposed actions of a routine nature that are authorised by or under prescriptions (ie policies and actions) in this Plan generally do not require impact assessment.

The Director and the Board make decisions on whether or not proposals should be approved using the Park's environmental impact assessment process. Decisions regarding proposals and activities in the Park are also subject to the process outlined in Section 4.1, Making decisions and working together.

## **Issues**

- If not properly assessed and managed, proposed actions may cause significant local environmental and cultural impacts and affect the interests of Bininj.
- Up-to-date, clear and consistent guidelines and procedures are needed for assessing proposals.
- Assessment of proposals by Park staff can require significant resources.

## **What we are going to do**

### ***Policies***

- 8.3.1 The potential impacts of all proposed actions under this Plan will be considered, and where necessary assessed, in accordance with Table 2, the assessment matters and considerations outlined in Table 3 and the following prescriptions. Where a proposed action requires approval or advice from the Board of Management the Board will be advised of the outcome of that consideration and any assessment.

**Table 2 – Impact assessment procedures**

Category	Example	Impact assessment requirements
<p><b>Category 1</b></p> <p>Actions considered likely to have no impact, or no more than a negligible impact, on the Park’s environment and natural and cultural values, and on Bininj</p>	<ul style="list-style-type: none"> <li>• Minor capital works eg maintaining, replacing, repairing or improving existing infrastructure in its present form</li> <li>• Regular/routine ongoing operations to implement prescriptions in this Plan eg patrols/weed control/fire management</li> <li>• Seasonal opening/closing of visitor areas</li> <li>• Issuing permits for regular activities in accordance with this Plan eg land-based tours, camping, research</li> </ul>	<ul style="list-style-type: none"> <li>• No assessment required</li> <li>• Use minimal impact work practices when implementing actions</li> </ul>
<p><b>Category 2</b></p> <p>Actions considered likely to have more than a negligible impact, but not a significant impact, on the Park’s environment and natural and cultural values, and on Bininj</p>	<ul style="list-style-type: none"> <li>• Moderate capital works eg new infrastructure or moderate expansion/upgrade of existing infrastructure</li> <li>• Rehabilitation of heavily eroded sites</li> <li>• Developments for approved existing tourism activities that do not require major works eg small safari camps</li> <li>• Minor new operations or developments to implement prescriptions in this Plan</li> <li>• Tour operator accreditation system</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment by Park staff, proponent, or independent expert</li> <li>• Assessment in accordance with procedures outlined in Table 3 and approved by Director and Board</li> </ul>
<p><b>Category 3</b></p> <p>Actions considered likely to have a significant impact on the Park’s environment and natural and cultural values, and on Bininj</p>	<ul style="list-style-type: none"> <li>• Major capital works eg new major infrastructure or major expansion/upgrade of existing infrastructure</li> <li>• Major new operations or developments to implement prescriptions in this Plan</li> <li>• Major/long-term changes to existing visitor access arrangements</li> <li>• Large-scale mine rehabilitation</li> <li>• Expansion of the Jabiru township</li> <li>• New types of commercial activities</li> <li>• New or major expansion of Bininj living areas</li> </ul>	<ul style="list-style-type: none"> <li>• Director will consider whether action should be referred for consideration as a ‘controlled action’ under the EPBC Act</li> <li>• If action referred and Minister decides it is a controlled action no assessment required by Park staff</li> <li>• If action not referred, or referred and Minister decides it is not a controlled action, assessment as for Category 2</li> </ul>

**Table 3 – Environmental impact assessment matters and considerations**

Matters for assessment	Considerations include, but not limited to
<p><b>1. Environmental context</b></p> <p>(a) What are the components or features of the environment in the area where the action will take place?</p> <p>(b) Which components or features of the environment are likely to be impacted?</p> <p>(c) Is the environment which is likely to be impacted, or are elements of it, sensitive or vulnerable to impacts?</p> <p>(d) What is the history, current use and condition of the environment which is likely to be impacted?</p>	<ul style="list-style-type: none"> <li>• Species, ecological communities in the park-wide and regional context</li> <li>• Matters of national environmental significance</li> <li>• Cultural features</li> <li>• Heritage features</li> <li>• Socio-economic values including Bininj uses and interests</li> <li>• Tourism and recreational values</li> <li>• Aesthetic/landscape values</li> <li>• Scientific reference areas</li> <li>• Short- and long-term impacts on- and off-site</li> <li>• Species, ecological communities</li> <li>• Matters of national environmental significance</li> <li>• Cultural values (including sacred sites)</li> <li>• Heritage values</li> <li>• Tourism and visitor experience</li> <li>• Bininj interests, in particular relevant lease conditions</li> <li>• Cumulative impacts from a range of activities across the park on the environment or its elements</li> <li>• Uniqueness of elements within the park-wide and regional context</li> <li>• Comparison with condition of similar sites elsewhere in the park</li> </ul>
<p><b>2. Potential impacts</b></p> <p>(a) What are the components of the action?</p> <p>(b) What are the predicted adverse impacts associated with the action including indirect consequences?</p> <p>(c) How severe are the potential impacts?</p> <p>(d) What is the extent of uncertainty about potential impacts?</p>	<ul style="list-style-type: none"> <li>• Include associated infrastructure and stages</li> <li>• Include indirect and off-site impacts</li> <li>• Consider scale, intensity, timing, duration and frequency</li> </ul>
<p><b>3. Impact avoidance and mitigation</b></p> <p>Will any measures to avoid or mitigate impacts ensure, with a high degree of certainty, that impacts are not significant?</p>	<ul style="list-style-type: none"> <li>• Include any alternative sites</li> </ul>
<p><b>2. Significance of impacts</b></p> <p>Considering all the matters above, is the action likely to have a significant impact on the environment?</p>	<ul style="list-style-type: none"> <li>• If yes, the Director will consider whether action should be referred for Ministerial consideration under the EPBC Act</li> </ul>

Note: this is a guide only – the detailed environmental impact assessment process is set out in the Manual of Procedures.

- 8.3.2 Proposed actions that are considered likely to have more than a negligible impact but are not controlled actions under the EPBC Act will be assessed in accordance with the Park's impact assessment procedures.
- 8.3.3 Assessment of proposed activities that are not controlled actions may be carried out by Park staff, proponents of the proposed activity, or independent experts.
- 8.3.4 Subject to the EPBC Act, the Director may recover from proponents the costs associated with administering, assessing and managing proposals.
- 8.3.5 A high priority will be placed on assessment of Bininj proposals.
- 8.3.6 The Board will decide on a case by case basis when proposals will be open to public comment.

#### **Action**

- 8.3.7 Review and update procedures for assessing proposals to ensure consistency with best practice.

## **8.4 Incident management**

### **Our aim**

Incidents and emergencies in the Park are responded to promptly, effectively and safely.

### **Measuring how well we are meeting our aim**

- Adequacy of response to incidents in the Park
- Number of staff who have received training in incident management

### **Background**

Incidents may occur in the Park that affect life, property and the environment, including car accidents, accidents in remote areas that need search and rescue operations, bushfires and chemical spills.

As noted elsewhere in this Plan the Director has the function under the EPBC Act of administering, managing and controlling the Park. This gives the Director responsibility in relation to incidents in the Park. Also, the Director has a duty of reasonable care for Park visitors and staff, and a duty under the *Occupational Health and Safety (Commonwealth Employment) Act 1991* to take reasonably practicable steps to protect employees and Park visitors from risks to their health and safety.

The Northern Territory Fire and Rescue Service (NTFRS) has the role under the *Fire and Emergency Act (NT)* of responding to fires and emergencies in an emergency response area. At the time of preparing this Plan an emergency response area is established for the Jabiru township. The NTFRS may also contribute to extinguishing or controlling fires or dealing with emergencies in other areas of the Park if requested by the Director or the Police. Jabiru members of the NTFRS respond to hazardous materials spills and road accident rescues along the Arnhem and Kakadu highways.

In relation to bushfires, the *Bushfires Act* (NT) is also relevant (see Section 5.7).

Police do not have a statutory role in relation to incidents of the type referred to in this Section (unless an incident is a disaster or emergency, requiring counter disaster measures, under the *Disaster Act* (NT)). However, under an intergovernmental agreement police forces are responsible for marine search and rescue operations for persons or ships in waters within the limits of ports of a state/territory and in respect of pleasure craft and fishing vessels; provision and coordination of land searches for missing civil aircraft; and overall coordination of searches for hikers and land vehicles. Under the agreement, in complex rescues the Police Officer-in-Charge controls the incident in liaison with representatives from each agency involved, including Parks Australia, fire and rescue and emergency services. The Police Officer-in-Charge has powers to draw on available resources, wherever they are and whoever controls them.

Given the location and size of the Park, there is also a need to be prepared to respond to potential large-scale incidents such as diseases which may be transmitted by wildlife or feral animal populations. In these instances, Park staff would cooperate with relevant Northern Territory and Australian government agencies.

When incidents occur in the Park anywhere other than in or near Jabiru, Park staff often reach the site before other emergency response agencies. Park staff are also often more familiar with remote areas of the Park and may have more experience in responding to some types of incidents. As a consequence, Park staff often have important incident management roles. To help manage incidents, a Park Emergency Contingency Plan and incident management procedures have been developed.

Responding to incidents can be costly, although until now the Director has not sought reimbursement or contributions toward costs from persons involved in incidents eg for search and rescue operations.

## **Issues**

- There is a need for appropriate numbers of properly trained and resourced personnel to provide effective incident response.
- There can be significant costs involved in providing incident response services.
- Incidents in the Park often attract media attention. It is important that the media is provided with accurate and consistent information when incidents occur.
- Uncertainty about the future of Jabiru and the maintenance of government and other services could have implications for incident response capability.

## **What we are going to do**

### ***Policies***

- 8.4.1 The Director will take all reasonable steps to ensure sufficient numbers of properly trained and resourced personnel are available to provide incident response services in the Park.

- 8.4.2 The Director will liaise with the Police, NTFRS, and other relevant agencies about incident response procedures, including responsibilities, personnel, training and resources.
- 8.4.3 Appropriate and accurate information about incidents will be provided to the media.
- 8.4.4 Subject to legal requirements and Board approval, the Director may seek reimbursement or contributions for the cost of responding to incidents, in particular search and rescue operations.

### **Actions**

- 8.4.5 Review and implement incident management procedures, addressing:
  - the roles and responsibilities of the Director and emergency response agencies
  - procedures for managing common and potential incidents that may affect life, property and the environment, including hazardous spills
  - legislative, training, reporting, record keeping, debriefing and counselling requirements.

## **8.5 Leases, licences and associated occupancy issues**

### **Our aim**

Leases, subleases or licences, and the management of associated occupancy issues, are provided for appropriately.

### **Measuring how well we are meeting our aim**

- Extent to which the Director's legislative obligations, including the requirements of this Plan, are met

### **Background**

As noted elsewhere in this Plan, at the time of preparation about half of the Park is Aboriginal owned land under the Land Rights Act that is leased to the Director. The remaining land, which is vested in the Director, is under claim under the Land Rights Act (with the exception of the Jabiru township).

A limited number of leases, subleases and licences have been granted by the Director in relation to land in the Park. Section 7.1 of this Plan addresses the Jabiru township lease. The site currently known as Aurora Kakadu near the South Alligator River has been leased for many years for visitor accommodation facilities. The Warradjan Aboriginal Cultural Centre is subleased to the Gagadju Association Inc to operate, and the Djabulugku Association subleases space in the Bowali Visitor Centre for a café and art gallery. Licences have been granted for essential services infrastructure and a seismic monitoring station.

Bininj reside at a number of living areas established in the Park (see Section 4.4). In addition, two families have occupied land in the west of the Park for many years although they have not been granted any formal occupation rights by the Director. At the time of preparing this Plan decisions



about ongoing use and occupation of these two areas are awaiting the outcome of the land claim over this part of the Park.

Section 358(2) of the EPBC Act allows the Director to grant a lease, sublease, or licence relating to land in the Park provided it is in accordance with a management plan. In addition, the Director's leases of Aboriginal land in the Park require the Director to have the agreement of the relevant Aboriginal Land Trust before granting any sublease or licence. However, in relation to land that is under claim, the Land Rights Act (s.67A) precludes the Director granting a lease, licence or other interest in relation to the land until the claim has been dealt with.

Cooinda and the Border Store are located on land that was excluded from the original Park proclamation in 1979. Cooinda is leased from the Australian Government. Border Store is an old mining tenement under the Mining Act (NT). One other mining tenement excluded from the Park is used for residential purposes.

### **Issues**

- Leases, subleases, licences and other occupancies (including those in areas excluded from the Park) need to be established and maintained to appropriate standards, including minimising impacts on Park values.
- In order to help support Bininj interests (and minimise impacts on the Park) rights to occupy and use land in the Park should be formalised as far as possible.

### **What we are going to do**

#### ***Policies***

- 8.5.1 The Director may, with the approval of the Board, grant leases, subleases and licences relating to land in the Park.
- 8.5.2 Occupation and use of land for Bininj living areas will be managed in accordance with Section 4.4 of this Plan.
- 8.5.3 Occupation and use of land in relation to Jabiru will be managed in accordance with Section 7.1 of this Plan.
- 8.5.4 Decisions about leases, subleases and licences will be made in accordance with Section 4.1, Making decisions and working together, including taking into account the impact assessment of the proposal under Section 8.3, Assessment of proposals.
- 8.5.5 The Director, in consultation with the Board, may determine the rent/occupation fee for each lessee, sublessee or licensee and the length of any lease or licence.

#### ***Actions***

- 8.5.6 As far as practicable, resolve ongoing rights to occupy and use areas being used and occupied in the Park but for which no formal tenure exists.
- 8.5.7 Monitor and take appropriate action to ensure that occupation and use of land in the Park, and those areas within but excluded from the Park, have minimal impact on Park values.

## 8.6 Research and monitoring

### Our aim

Research and monitoring activities in the Park:

- lead to a better understanding of the Park's biodiversity and natural and cultural heritage values
- effectively involve Bininj and traditional skills and knowledge
- identify changes to the environment in the Park
- contribute to effective management of the Park and the region
- indicate the effectiveness of management actions in protecting Park values.

### Measuring how well we are meeting our aim

- Extent to which research and monitoring increases understanding of Park values and Park use
- Extent to which research and monitoring informs decision-making and assessing effectiveness of management actions
- Level of Bininj satisfaction with the extent of their involvement in planning and management of research and monitoring activities

### Background

Effective research and monitoring by the Director provides essential information to assist the Director and the Board, and the Australian Government, to make decisions about management of the Park. This work may be carried out by Park staff or consultants engaged by the Director. It may also be carried out in collaboration with other government agencies, organisations and individuals.

Other government agencies, organisations and individuals may also wish to carry out research and monitoring activities for their own purposes, independently of the Director, and may want to do so for either non-commercial or commercial purposes.

The Supervising Scientist for the Alligator Rivers Region (the Supervising Scientist) and the Alligator Rivers Region Research Institute, known as the Environmental Research Institute of the Supervising Scientist (eriss), have research and monitoring functions to perform in the Park under the *Environment Protection (Alligator Rivers Region) Act 1978* (EPARR Act). These functions relate to uranium mining operations in the Alligator Rivers Region and general mining operations in areas that were included in the Kakadu Conservation Zone that existed in the south of the Park between 1987 and 1991. An additional function of eriss is to conduct research on environmental matters for other persons on a commercial basis. During the life of the previous (4th) Management Plan the Director and the Supervising Scientist reached agreement on protocols for the Supervising Scientist and eriss to carry out their functions.

As noted in Section 4.1, the KRAC provides advice to the Board on research issues and priorities for the Park.

Projects related to researching and monitoring the natural and cultural heritage of the Park that had been, or were being, conducted prior to commencement of this Plan included monitoring the impacts of cane toads on northern quolls and selected goanna species; ongoing monitoring of the status of marine turtles; public rock art site monitoring; landscape change monitoring; ongoing fire plot monitoring; and a collaborative marine biodiversity survey conducted with the National Oceans Office, Northern Territory Government and the NLC. Where possible all research and monitoring projects conducted in the Park involve Bininj and incorporate their knowledge of country.

Annual Park visitor numbers have been monitored since 1982. Major Park visitor surveys were conducted in 1993 and in 2000–2001. These surveys focused on demographics, satisfaction levels, modes of transport, visitor activities and site-specific issues. The 2001–2002 survey also included a traffic counter program. The commercial tour operator permit system provides information that helps with monitoring tour operator activities in the Park. Visitor research, surveys and monitoring provide useful information on tourism trends, market segments, visitor use and satisfaction, requirements for planning and developing visitor facilities and new visitor opportunities, and the economic impacts and benefits of tourism. This information is useful for both the Park and tourism agencies and operators.

Under r.12.10 of the EPBC Regulations research may not be undertaken in the Park unless it is provided for by, and carried out in accordance with, a management plan in force for the Park; or is authorised by a permit, or under certain other conditions (r.12.06). Research which involves taking, keeping, moving, etc, native species, or is undertaken for commercial purposes, is prohibited by s.354(1)(a) of the Act except where undertaken in accordance with this Plan.

Research which involves actions that affect members of species that are protected under Part 13 of the Act ie listed threatened species, ecological communities, migratory species, marine species, or cetaceans, must also comply with the provisions of Part 13.

Research in the Park may involve ‘access to biological resources’ ie taking biological resources of native species for research and development on any genetic resources, or biochemical compounds, comprising or contained in the biological resources. Part 8A of the EPBC Regulations (made under s.301 of the Act) controls access to biological resources in Commonwealth areas, including Kakadu (see Section 5.9, Bioprospecting).

## **Issues**

- Research and monitoring needs to be prioritised and planned in order to be effective.
- Research and monitoring activities should provide information that contributes to the effective management of the Park and this information needs to be clearly communicated to Park staff and Bininj.
- Bininj interests and traditional knowledge play a fundamental part in understanding changes in and condition of the natural and cultural values of the Park.
- Effective methods for storing and retrieving data are required.
- Research and monitoring by the Director should take account of the Park’s regional context.

- Effective working relationships are required with the Supervising Scientist and eriss.
- Some issues such as causes of climate change are beyond management control and may have a significant impact on Park values.

## **What we are going to do**

### ***Policies***

- 8.6.1 The Director will carry out, take part in, and contribute to research and monitoring that is consistent with this Plan and helps to improve the management of the Park.
- 8.6.2 The Director may carry out research and monitoring that involves actions covered by s.354(1)(a) of the EPBC Act in relation to members of native species eg taking, keeping or moving.
- 8.6.3 The Supervising Scientist and eriss may carry out research and monitoring, including actions covered by s.354(1)(a) of the EPBC Act, in accordance with protocols agreed with the Director and approved by the Board.
- 8.6.4 Organisations and individuals may carry out research and monitoring, including actions covered by s.354(1)(a) of the EPBC Act:
- in collaboration with the Director, under an agreement or
  - in accordance with a permit issued by the Director under the EPBC Regulations.
- 8.6.5 Research and monitoring may only be carried out for commercial purposes if approved by the Board (generally, or in relation to a particular research and monitoring activity or class of activities).
- 8.6.6 Permits authorising research and monitoring may be issued if:
- the activity will not threaten the conservation status of a species or ecological community
  - the activity will not adversely impact on any cultural site or its values
  - the activity cannot reasonably be done outside the Park
  - the proposed permit holder has satisfactorily addressed Bininj concerns about the use of any Bininj traditional or cultural knowledge.
- 8.6.7 Research and monitoring that involves access to biological resources within the meaning of Part 8A of the EPBC Regulations must comply with those Regulations, in addition to the requirements of this Section of the Plan (see also Section 5.9, Bioprospecting).
- 8.6.8 Research activities will be managed in accordance with the guidelines developed and reviewed from time to time in consultation with the KRAC and approved by the Board.
- 8.6.9 Unless otherwise identified in guidelines approved by the Board, Bininj will be consulted about all proposed research and monitoring activities, including the potential benefits and impacts of the research and/or monitoring for the Park and Bininj.

- 8.6.10 Persons carrying out research and monitoring under agreement with, or a permit from, the Director will be required to provide reports to the Director (including progress reports for longer-term research and monitoring), in hard copy and electronic format and including plain English summaries and appropriate summaries for Bininj.
- 8.6.11 Park management actions should as far as practicable be monitored, regularly and in relation to specific projects, to assess effectiveness.
- 8.6.12 Research and monitoring activities should use standard methodologies as far as practicable.
- 8.6.13 The Director and the Board will consult and seek advice from the KRAC as necessary (see also Section 4.1 of this Plan).

### ***Actions***

- 8.6.14 In consultation with Bininj, the KRAC, the tourism industry and the Board, undertake a long-term research and monitoring program consistent with the following proposed research and monitoring priorities, and other priorities as determined by the Board. Proposed research and monitoring priorities include:
  - cultural heritage conservation, according to priorities determined by the Board
  - location and extent of potential sea level rises, channel changes and areas subject to undesirable salt water intrusion within the Park, and the factors that cause or accelerate such changes
  - ongoing Park visitor surveying and monitoring, including at least one major visitor-wide survey and ongoing monitoring of visitor numbers, visitor use patterns and satisfaction, visitor impacts and tour operator activity
  - tourism trends, market segments, gaps in visitor experiences and social and economic benefits and impacts
  - baseline surveys and ongoing monitoring of the distribution and abundance of listed species and communities including EPBC Act and Northern Territory listed species
  - status of native wildlife populations and their interactions with fire and other environmental and climatic factors, including the use of established long-term fauna and vegetation sites
  - species declines including, for example, small mammals and granivorous birds
  - distribution and abundance of marine species, communities and habitats in collaboration with Northern Territory Government and other agencies
  - assessment of the natural and cultural values of the West Alligator River
  - monitoring recreational fishing and boating activities (such as collection of fish catch) in Park waterways including the Wildman River
  - impact of fire on habitats and native species including the effects of weeds on fire and of fire on weed distribution, and the effectiveness of wet season burning as a habitat management tool

- impacts of feral animals and weeds on Park values, and improved survey and control
- impacts of chemicals used for weed management on the environment
- development of a 1:25 000 habitat map of the Park with priority on sandstone communities
- monitoring of water quality at Park facilities and visitor sites, including water bodies where visitors swim and those that may be used for boating
- causes and effects of landscape change, including feral animal damage, weeds, fires, tidal deposition, floods, salt water intrusion, river channel changes and changes in vegetation boundaries. Research will include how these processes interact and how the effects vary across different landscape types and vegetation communities.

8.6.15 As far as practicable, develop and maintain systems for collecting and storing research and monitoring data using the most up-to-date technology possible.

8.6.16 Maintain and, as needed, update the protocols agreed with the Supervising Scientist regarding the conduct of research activities in the Park by the Supervising Scientist and eriss.

## 8.7 Resource use in Park operations

### Our aim

Reduce the Park's ecological footprint through the use of best environmental practices in relation to use of resources.

### Measuring how well we are meeting our aim

- Level of resource use and waste in the Park
- Number and type of safety incidents related to waste management practices

### Background

The Director supports environmental best practice principles in regard to the use of resources and management of waste products in the Park. Examples where these principles are applied include the use of solar power for hot water heating in Park houses and powering of bores, building designs that minimise energy use for cooling, and investigations (at the time of writing this Plan) into the use of hybrid solar/diesel power generators for Park infrastructure.

Environmental best practice principles are consistent with the need for conserving the Park's natural and cultural resources and Kakadu's status as a World Heritage area, and minimising the potential impacts associated with waste management practices.

### Issues

- Within the Park and the Kakadu region, there is potential to improve waste management practices and the environmentally responsible use of resources.
- The disposal of some substances in the Park may be hazardous to the health of people and wildlife.

## **What we are going to do**

### ***Policy***

- 8.7.1 Recycled and renewable resources and technologies that reduce environmental impacts and energy use will be used within the Park where possible.

### ***Action***

- 8.7.2 Work with other organisations, suppliers, contractors and other relevant people to take a regional approach to:
- investigate, and where cost effective implement, strategies and technologies (such as energy reduction and alternative energy sources) for reducing the Park’s output of greenhouse gases
  - promote best practice environmental work practices and activities in the Park
  - promote best practice environmental standards relating to manufactured resource use in the Park and the Kakadu region
  - audit environmental performance and resource use in the Park
  - investigate, and where possible and cost effective implement, alternatives to dumping waste materials in the Park
  - comply with internal environmental management plans and relevant government policy and legislation, including toxic and hazardous waste disposal requirements.

## **8.8 New activities not otherwise specified in this Plan**

### **Our aim**

The Director and the Board are able to respond to new issues and proposals consistent with this Plan and the EPBC Act and Regulations.

### **Measuring how well we are meeting our aim**

- Extent to which new issues are dealt with effectively and consistent with the principles and policies set out in this Plan

### **Background**

This Plan sets out how the Park will be managed for a period of seven years. During that time, circumstances may arise or proposals be brought forward for actions which were not known at the time the Plan was prepared and which require the Director to take actions that are not covered by specific prescriptions in this Plan. As noted in Section 2.4, Legislative context, under s.354(1) of the EPBC Act certain types of actions can only be taken if they are authorised by this Plan (including acts in relation to native species, works, and actions for commercial purposes). The Director is required by the Act (s.362) to exercise the Director’s powers, eg to issue permits, and to perform the Director’s functions so as to give effect to the Plan.

## Issues

- This Plan needs to enable appropriate actions to be taken and authorised that are not specified by other prescriptions in the Plan because they were not foreseen at the time of writing this Plan.

## What we are going to do

### Policies

- 8.8.1 The Director may take actions that are not covered by specific prescriptions in this Plan, including actions covered by s.354(1) of the EPBC Act.
- 8.8.2 The Director may, with the approval of the Board, authorise (whether by permit, contract, lease or licence) actions by other persons that are not covered by specific prescriptions in this Plan, including actions covered by s.354(1) of the EPBC Act.
- 8.8.3 Except in cases of emergency, the decision-making and impact assessment processes prescribed in Sections 4.1 and 8.3 of this Plan apply to actions under this Section.

## 8.9 Management Plan implementation and evaluation

### Our aim

This Plan is effectively implemented.

### Measuring how well we are meeting our aim

- Degree to which this Plan is implemented and meets its aims

### Background

One of the main functions of the Board is to make decisions relating to the management of the Park consistent with this Plan and, in conjunction with the Director, to monitor the management of the Park. Parks Australia's Strategic Planning and Performance Assessment Framework is used to help monitor and improve the management of Commonwealth reserves. A full description of this framework and the key result areas (KRAs) and outcomes relevant to this Plan is in Section 1.2, Structure of this Management Plan, and in Appendix C.

The prescriptions contained in this Plan are based on achieving KRA outcomes and government legislative requirements (including the EPBC Act and the Director's lease obligations) that deal with specific attributes and issues related to the management of the Park.

It is the responsibility of the Director under s.514B of the EPBC Act to administer, control, protect, conserve and manage biodiversity in Commonwealth reserves. Funds for the management of the Park are allocated from the Australian National Parks Fund under the EPBC Act. The principal sources of the fund's money are prescribed by s.514S of the EPBC Act. Under s.356A of the EPBC Act the Director may collect charges for activities undertaken in Commonwealth reserves, subject to the approval of the Minister. As an authority for the purposes of the *Commonwealth Authorities and Companies Act 1997*, the Director is also subject to the requirements of that Act as well as other relevant legislative requirements and government policies. These policies include



the Department of the Environment and Water Resources' Risk Watch List, which is used to identify and help manage Departmental risk management issues.

As stated above, funds for management of the Park come from the Australian National Parks Fund and the sources of the fund's money are prescribed by s.514S of the EPBC Act. They are monies appropriated by the Commonwealth Parliament for the purposes of the Department of the Environment and Water Resources and allocated by the Secretary for the management of Commonwealth reserves; amounts paid to the Director in respect of leases, licences and permits granted or issued by the Director; and charges determined and imposed by the Director under s.356A of the EPBC Act for entering or using a Commonwealth reserve or part of a Commonwealth reserve and using services or facilities provided by the Director.

Park staff are responsible for the management of the Park's budget in accordance with the Chief Executive Instructions and policies of the Director. In accordance with Australian Government policy, accounts are maintained on an accrual accounting basis and decisions regarding capital works and infrastructure must consider total life cycle costings. Section 514T of the EPBC Act prescribes how the Director may apply the money of the Australian National Parks Fund. Principally, the money must be used in payment or discharge of the costs, expenses and other obligations incurred by the Director in the performance of the Director's functions.

Park staff are currently employed by the Department of the Environment and Water Resources. The Department requires each staff member to have an individual performance and development plan that links their work output to agreed work plans. For Park staff, these relate directly to the implementation of the Management Plan. The Department is required to provide learning and development opportunities for staff related to their agreed work plans and career development.

In the life of the previous (4th) Management Plan, a Manual of Procedures, which provides guidance on how certain management activities will be undertaken across the Park, was developed and updated.

### **Issues**

- For the Board to effectively monitor, evaluate and make informed decisions about the allocation of funding and resources there is a need for clear, accurate and regular information regarding the implementation of this Plan.
- To effectively and responsibly implement this Plan work policies, procedures and programs must be consistent with the Plan, the priorities of the Board and with relevant government policies.

### **What we are going to do**

#### ***Policies***

- 8.9.1 Priorities for implementation of the actions in this Plan will be determined by the need to:
- protect and promote World Heritage and other Park values

- ensure visitor safety
  - provide benefits to Bininj and respect Bininj aspirations
  - ensure cost effectiveness.
- 8.9.2 Park work programs, expenditure, staff learning and development plans, staff training and activities will be linked to implementing this Plan and any other priorities as determined by the Board.
- 8.9.3 Park management activities will be carried out in accordance with the Park’s Manual of Procedures.
- 8.9.4 An annual review of the implementation of this management plan will be provided through the Director’s Annual Report.

### **Actions**

- 8.9.5 The Park Manager will report quarterly to the Board on the implementation of this Plan and on Park expenditure in a manner requested by the Board and consistent with any government requirements.
- 8.9.6 Develop an implementation schedule for this Plan. Based on the schedule, develop and implement annual priorities and work plans.
- 8.9.7 Develop a business plan to effectively and responsibly assist with the implementation of this Plan. Include in the business plan a review of charges collected by the Director. Where considered appropriate, approval for charges may be sought from the Minister.
- 8.9.8 Following consultation with relevant stakeholders, develop and/or review Park policies and operational procedures and present them to the Board for consideration.
- 8.9.9 Prior to the preparation of the next management plan, prepare and present to the Board a technical audit of this Plan. The audit will include, but may not be limited to, the following terms of reference:
- consideration of each prescribed management policy and action and whether or not it was successfully implemented
  - evaluation of the performance of each prescribed policy and action in relation to the Section aim(s) that it was intended to achieve
  - in the case of any prescribed policy and action that was not implemented, or which failed to achieve the desired aim(s), determination of the cause
  - recommendations to the Board and Director regarding any changes to aims, policies and actions that should be considered during the preparation of the next plan.
- 8.9.10 Investigate and, subject to Board and other relevant approvals, implement measures to seek new sources of revenue to help implement this Plan.

# Appendices



## Appendix A.

### Provisions of leases between Aboriginal Land Trusts and the Director of National Parks

#### KAKADU NATIONAL PARK

#### THE NORTHERN TERRITORY OF AUSTRALIA

##### MEMORANDUM OF LEASE

KAKADU / JABILUKA / GUNLOM ABORIGINAL LAND TRUST (“the Lessor”) being a Land Trust established pursuant to sub-section 4(1) of the Aboriginal Land Rights Northern Territory) Act 1976 (“the Land Rights Act”) BEING registered as the proprietor of an estate in fee simple, in

ALL THAT piece or parcel of land in the Northern Territory of Australia (“the Leased Area”) being part of NT Portion 1662 / 2374, 2375 & 2376 / 4774 more particularly shown on plan CP 19 / S84/198, S84/199 & S84/203 / S95/212, which has been deposited at the Land Titles Office, Darwin BEING the whole of the land comprised in the Grant Registered Volume 19 Folio 165 / Volume 167 Folio 018 / Volume 477 Folio 049, and

HAVING received a direction from the Northern Land Council pursuant to the provisions of the *Land Rights Act*, that direction having been given by the Land Council on its being satisfied that:

- A. the Traditional Aboriginal Owners of the Park understand the nature and purpose of this Lease, and as a group, consent to it;
- B. the Aboriginal communities and groups which may be affected by this Lease have been consulted and have had adequate opportunity to express their views to the Land Council; and
- C. the terms and conditions of this Lease are reasonable,

HEREBY GRANTS a lease of the said Part of NT Portion 1662 / 2374, 2375 & 2376 / 4774 to the DIRECTOR OF NATIONAL PARKS & WILDLIFE (“the Lessee”), a corporation established by the *National Parks and Wildlife Conservation Act 1975* (“the Act”) to be held by the Lessee for the purposes of the Act, subject to and in accordance with the following reservations, provisions, covenants and conditions.

#### PART I – RESERVATIONS

##### Reservation of Right of Entry and Inspection

- 1 The Lessor reserves a right in favour of the Chairman of the Land Council or any person authorised in writing by the Land Council, at all reasonable times and in any reasonable manner, to enter upon the Park or any part of it and to inspect the Park and any improvements on the Park.

### **Reservations of Traditional Rights to Use and Occupy**

- 2 (1) An Aboriginal or group of Aboriginals is entitled to enter upon the Park and use or occupy the Park to the extent that that entry occupation or use is in accordance with Aboriginal tradition governing the rights of that Aboriginal or group of Aboriginals with respect to that land, whether or not those rights are qualified as to place, time, circumstances, purpose, permission or any other factor.
- (2) Without limiting the generality of sub-clause 2 (1) the Lessor reserves in favour of Relevant Aboriginals and groups of Relevant Aboriginals the following rights, which shall operate subject to the directions or decisions of the Board with respect to health, safety or privacy –
- (a) the right to continue, in accordance with law, the traditional use of any area of the Park for hunting or food gathering (otherwise than for purposes of sale);
  - (b) the right to continue the traditional use of any area of the Park for ceremonial and religious purposes; and
  - (c) subject also to such reasonable constraints as may be contained in the Plan of Management for reasons of safety, security, privacy or protection of the Park, the right to reside within the Park at such places at which such Aboriginals are residing at the commencement of this Lease and at such other locations as may be specified in the Plan of Management, together with rights of access and residence for their families, employees, staff, invitees and agents.

### **Reservation of requirements to sublet part of the Park**

- 3 The Lessor reserves the right to require the Lessee to sub-let any reasonable part of the Park with the consent of the Lessee, which consent shall not be unreasonably or capriciously withheld, as requested in writing by the Board to the Lessor in accordance with the Act and the *Land Rights Act* and the Plan of Management.

## **PART II – PROVISIONS**

### **Commencement**

- 4 This lease shall commence on the 1st day of January 1991 (Kakadu & Jabiluka) / 14th day of January 1996 (Gunlom).

### **Determination and surrender of former lease (Kakadu lease only)**

- 5 The Former Lease is hereby determined and the Lessor and the Lessee agree to take all steps and do all things necessary to surrender the Former Lease.

(Jabiluka lease only - there is no clause 5)

### **Native Title (Gunlom lease only)**

- 5 Nothing in this Lease shall be construed so as to affect or derogate from in any way any native title, Aboriginal or other rights, privileges or freedom of any Relevant Aboriginals or any of them or any other person that may subsist in the Park regardless of whether such rights, privileges and freedom are recognised, established or defined before or after the execution of this Lease.

## Term

- 6 This Lease shall expire on the 31st day of December, two thousand and seventy eight (2078).

## Financial Arrangements

- 7 (1) The Lessee shall pay to the Land Council on behalf of the Lessor an annual rent of \$175,701 (Kakadu) / \$1 (Jabiluka) / \$98,000 (Gunlom) payable in advance and shall further pay to the Land Council on behalf of the Lessor:
- (a) an amount equal to 25% (Kakadu) / 0 (Jabiluka) / 13.8% (Gunlom) of receipts from any entrance and camping fees and other charges imposed in pursuance of sub-section 17(1A) of the Act, such amounts to be paid quarterly calculated by reference to receipts of the previous quarter.
  - (b) an amount equal to 25% (Kakadu) / 0 (Jabiluka) / 13.8% (Gunlom) of receipts in respect of any charge, penalty, fee, fine or impost received by the Lessee or the Commonwealth of Australia arising out of the operation of the provisions of the Act or the Regulations made thereunder in respect of commercial activities undertaken within the Park in excess of the sum of Thirty Thousand Dollars (\$30,000) ("the threshold amount") to be paid annually in arrears and calculated by reference to receipts of the previous year.
- (2) The Lessee shall pay to the Land Council on behalf of the Lessor an amount equal to 25% (Kakadu) / 0 (Jabiluka) / 13.8% (Gunlom) of the amount received by the Lessee or by the Commonwealth of Australia pursuant to the grant of any estate or interest in the Park dependent on the Lessee's interest such payments to be made within four (4) weeks of receipt by the Lessee or by the Commonwealth of Australia.
- (3) Notwithstanding any term or provision of this Lease to the contrary nothing in this clause extends to any charge, penalty, fee, fine or impost received by the Lessee or the Commonwealth of Australia and arising out of the operation of the provisions of the Act or the Regulations made thereunder other than the charges, penalties, fees, fines or imposts referred to in sub-clause 1.

## Rent Review

- 8 (1) The annual rent to be paid under clause 7 and the threshold amount pursuant to paragraph 7 (1) (b) (collectively "the review figures") shall be reviewed on the first day of January, two thousand and one (2001) and thereafter at five (5) yearly intervals during the term of this Lease (collectively "the review date") and shall be calculated by individually multiplying each of the review figures at the commencement of this Lease (called "base period") by the fraction  $N_1/B_1$ .
- $N_1$  refers to the Consumer Price Index for Darwin (all groups) published by the Australian Bureau of Statistics ("the Bureau") in respect of the quarter immediately preceding the particular review date and  $B_1$  is the Consumer Price Index for Darwin (all groups) published by that Bureau in respect of the quarter immediately preceding the base period.

- (2) In the event that at any time during the term of this Lease the Bureau shall up-date the reference base of that index, the required conversion shall be made to preserve the intended continuity of the calculations by making the appropriate arithmetical adjustment to make the up-dated index number correspond in reference base to the index number at the review date.
- (3) In the event that it is not possible to make an arithmetical adjustment as specified in sub-clause 8 (2), or if there is a change in the basis of assessment of that index or its calculation has been suspended or discontinued, then in the event of the parties failing to agree upon a formula provided for in sub-clause 8 (1) then the matter shall be referred for determination by the Australian Statistician to fix a formula for review of the review figures on the review date which will provide as nearly as practicable the same adjustments of their review figures as if the Consumer Price Index referred to in sub-clause 8 (1) had been continued without variation and the determination shall be final and binding upon the parties.
- (4) Each rent review shall be made within three (3) months prior to the review date.
- (5) The Lessor shall notify the Lessee in writing of its calculation of the increase in the review figures on the review date.
- (6) The review figures shall not be reduced in the event of a decrease in the index number since the previous review date.
- (7) If the Lessee fails or refuses to accept the Lessor's assessment of the review figures by notice in writing or the parties fail to agree upon the review figures at the review date within 30 days after service of notice thereof by the Lessor, the review figures shall be determined by reference to arbitration and thereupon the provision of paragraphs 16(2)(a) to (d) shall apply *mutatis mutandis*.
- (8) The Lessee shall in the interim pay the rent including an amount equal to not less than half of the increase in rent payable as calculated by the Lessor in the event that the parties are unable to resolve the difference in their calculations prior to the date for payment of the rent.
- (9) If the Lessee has paid rent in excess of the current amount due because of the Lessor's calculation the Lessor shall repay the excess together with interest thereon at a rate equal to the interest rate charged at the time of the interim payment by the Lessee's banker for amounts equal to the excess rent paid calculated at a daily rate.

### **PART III – COVENANTS AND CONDITIONS**

#### **9 The Lessee covenants –**

- (a) to take all practicable steps to ensure compliance by all persons with the Act, regulations under the Act, this Lease and the Plan of Management;
- (b) not to transfer, assign, sublet or part with the possession of the Park or any part of the Park without the consent in writing of the Lessor;

- (c) to pay the Land Council's and the Land Trust's reasonable costs of and incidental to the preparation, execution, registration and stamping of this Lease agreed and assessed at ten thousand dollars (\$10,000) and in addition, to pay all registration fees and stamp duty payable in connection with this Lease;
- (d) to pay all rates and taxes which may at any time become due in respect of the Park;
- (e) to carry all of the risk as self-insurer in respect of the timely reinstatement to full value of any of the improvements in the Park which may be damaged or destroyed without the consent of the Lessor, being improvements existing at the date of the commencement of this Lease and such other improvements as may be made, except such improvements in respect of which there exists a contract of insurance insuring the risk to the extent of liability imposed upon the Lessee under this sub-clause;
- (f) to carry all of the risk as self-insurer as occupier of the Park as regards any liability to any third person;
- (g) as far as is practicable, to make good any damage to the Park (other than improvements) being damage caused by the Lessee except where the damage to the Park was occasioned with the consent of the Lessor or of the Board;
- (h) to comply with all Acts, regulations and other laws otherwise applicable to the Park;
- (i) to have regard in the performance of its functions in relation to the Park, to such priorities in allocating financial and other resources as are provided in the Plan of Management or determined from time to time by the Board;
- (j) to promote and protect the interests of Relevant Aboriginals;
- (k) to protect areas and things of significance to Relevant Aboriginals;
- (l) to encourage the maintenance of the Aboriginal tradition of Relevant Aboriginals;
- (m) to take all practicable steps to promote Relevant Aboriginal administration management and control of the Park;
- (n) subject to the Plan of Management, to engage as many Relevant Aboriginals as is practicable to provide services in and in relation to the Park;
- (o) without limiting the generality of the foregoing, to utilise the traditional skills of Aboriginal individuals and groups in the management of the Park;
- (p) subject to the Plan of Management, to encourage Relevant Aboriginal business and commercial initiatives and enterprises within the Park;
- (q) subject to the Plan of Management, to facilitate development of outstations by Relevant Aboriginals; (Gunlom lease only)



- (r) to liaise and consult regularly with the Land Council and Relevant Aboriginal Associations in connection with the administration, management and control of the Park; ((q) in Kakadu and Jabiluka leases)
  - (s) to consult with and have regard to the views of the Land Council in respect of the formulation of any educational and interpretive policy in relation to the Park; ((r) in Kakadu and Jabiluka leases)
  - (t) not to make any arrangements under sub-section 36(4) of the Act for the performance of functions or the exercise of powers under that Act in relation to the Park without the consent of the Land Council ((s) Kakadu and Jabiluka leases) (Kakadu and Jabiluka leases only): except arrangements for the performance of functions and the exercise of powers in relation to the Park by officers or employees of the Conservation Commission of the Northern Territory established by the *Conservation Commission Act 1980* of the Northern Territory of Australia, who are responsible to the Lessee and under the direct supervision of the Service;
  - (u) as far as practicable and subject to the Plan of Management and to this Lease, to provide such capital equipment and machinery as is reasonably required for the adequate maintenance of roads, camping facilities and all other Park improvements (being roads, facilities or improvements owned or controlled by the Lessee); ((t) in Kakadu and Jabiluka leases)
  - (v) after consultation with and having regard to the views of Relevant Aboriginal Associations and the Land Council, and subject to the Plan of Management, to implement a licensing and induction scheme for tour operators carrying on commercial activities in the Park; ((u) in Kakadu and Jabiluka leases)
  - (w) subject to the Plan of Management and the Act to use its best endeavours to collect entrance and camping and other charges and ensure such charges are properly accounted for on an audited basis; ((v) in Kakadu and Jabiluka leases) and
  - (x) subject to the Plan of Management, to permit an officer or officers of the Land Council to enter and move freely in the Park for the purpose of performing on behalf of the Land Council the statutory powers or functions of the Land Council. ((w) in Kakadu and Jabiluka leases)
- (the remaining sub-clauses of clause 9 are in the Gunlom lease only)
- (y) (i) The Lessee shall at all times respect and observe all due solemnity and deference with respect to sacred sites and shall consult with the Traditional Aboriginal Owners of such sites for the purpose of:
    - (A) establishing maintaining and updating a confidential register of the locations of sacred sites; and
    - (B) establishing, maintaining and updating a protocol for conduct in accordance with Aboriginal tradition in respect of each sacred site, including conduct when emergency access is required;

- (ii) In so far as he is permitted by the Act, the Lessee shall take such reasonable measures requested by the Traditional Aboriginal Owners or the Land Council as are reasonably necessary to ensure the protection of any sacred sites in the Leased Area of which the Lessee has knowledge or could reasonably be expected to have such knowledge as a result of consultations pursuant to subclause g(y)(i) hereof and to use all reasonable measures to ensure that any such sacred sites are not interfered with in any way, manner or form.
- (iii) For the purposes of this clause g(y) a sacred site shall be interfered with if:
  - (A) conduct which is not appropriate in accordance with Aboriginal tradition occurs at the site, or the sacred site is used or entered into not in accordance with Aboriginal tradition; and
  - (B) such inappropriate conduct, use or entry was without permission of the Land Council.
- (iv) Such protective measures as aforesaid shall be carried out in consultation with the Traditional Aboriginal Owners of the sacred sites, the Land Trust and the Land Council and may include the prohibition of persons from any particular area or areas and without limiting the generality of the foregoing, such measures may include the posting of appropriate notices; the erection of fences or other barriers, or the closing of any access roads to or impinging on sacred sites.
- (v) In the event that damage occurs to any sacred site as a result of the Lessee being in breach of this covenant, then the Lessee shall:
  - (A) pay compensation for distress, injury, or trauma, whether spiritual, physical or emotional, caused to any Traditional Aboriginal Owner of the site as a result of the entry or damage; and
  - (B) in the absence of agreement being reached within a reasonable time between the Land Council and the Lessee, the amount of any compensation payable under this clause shall be assessed by an independent person with legal qualifications and at least 10 years experience as a practitioner of law in the Supreme Court of any State or Territory in Australia who shall be appointed by the Commonwealth Minister of Aboriginal and Torres Strait Islander Affairs, and shall be a person who is of recognised high reputation and capacity and who has an acknowledged familiarity with damage caused to sacred sites and the impact of such damage on Aboriginal people associated with such sites. Compensation payable under this clause is not dependent on the Lessor or the Land Council suffering economic loss; but shall at all times be commensurate with the level of distress, injury or trauma suffered.
  - (C) any such compensation shall be paid to the Land Council on behalf of those persons; and
  - (D) in any event restore the sacred site to such condition as the Land Council in consultation with the Traditional Aboriginal Owners shall determine.

- (z) In full consultation with the Lessor, to complete by the thirty first day of December two thousand (2000) a plan of environmental rehabilitation, in respect of the site known as Guratba (Coronation Hill) and other mine sites and associated workings in the Leased Area, so as to limit and where possible reverse the impact on the environment of any mining activities previously carried out thereon. Without limiting the generality of the foregoing such plan shall address:-
- (i) removal as may be required by the Lessor, of all plant, machinery, equipment, refuse, debris or rubbish presently at each site which is not part of the natural environment of the site;
  - (ii) measures to minimise soil erosion at each site (including containment of mine waste);
  - (iii) establishment of a stable ecosystem of indigenous flora at each site, both to replace lost flora and to contribute to sub-paragraph (ii) hereof;
  - (iv) sealing of drill holes, mining shafts and trenches as required by the Lessor;
  - (v) control and eradication of weeds and animals in accordance with sub-clause 13(3) hereof; and
  - (vi) such other measures as may be agreed by the parties from time to time; and the Lessee shall use its best endeavours to fully implement such plan of environmental rehabilitation by the 31st day of December, two thousand and fifteen (2015).

### **Disposal of Park Equipment**

- 10** (1) Subject to any lawful obligation imposed upon the *Lessee by the Audit Act 1901* or the Finance Directions issued thereunder, if at any time during the term hereof the Lessee is desirous of disposing of its interest in any property or equipment of the Lessee used in the operation of the Park, the Lessee shall give to the Lessor for the benefit of the Lessor, the Land Council or its nominee, any Relevant Aboriginal Association and any other incorporated body the membership of which is limited to Relevant Aboriginals or groups of Relevant Aboriginals (in this clause referred to as the “permitted Aboriginal purchaser”) the right of the first refusal to purchase the said property or equipment or any part thereof subject to the following terms and conditions: -
- (a) the Lessee shall give notice in writing to the Land Council of the Lessee’s intention to dispose of any such property or equipment. The notice shall constitute an offer by the Lessee to sell any such property or equipment to a permitted Aboriginal purchaser and shall specify the consideration required by the Lessee from a permitted Aboriginal purchaser for the purchase of the Lessee’s interest therein, which consideration shall not impose any more onerous an obligation or duty upon the permitted Aboriginal purchaser or require the permitted Aboriginal purchaser to pay any greater pecuniary sum than the Lessee would impose upon or require from a purchaser other than a permitted Aboriginal purchaser;

- (b) within fourteen (14) days after the Lessee gives the said notice a permitted Aboriginal purchaser may give notice in writing to the Lessee of acceptance or rejection of the Lessee's offer to sell;
  - (c) in the event of the giving of a notice of acceptance there shall be deemed to be a binding contract for sale by the Lessee and purchase by the permitted Aboriginal purchaser of the Lessee's interest in the said property or equipment for the consideration stated in the Lessee's notice;
  - (d) the purchase price shall be paid within thirty (30) days from the date on which the notice of acceptance is given to the Lessee and, if the permitted Aboriginal purchaser shall make default in payment of the purchase price or any part thereof, it shall be lawful for the Lessee at its option and without prejudice to any other legal rights or remedies that the Lessee may have, upon giving fourteen (14) days notice in writing to the permitted Aboriginal purchaser, to rescind the contract constituted pursuant to paragraph (b) and thereupon to resell the said property or equipment by public auction or private contract and any deficiency on resale together with all outgoings, costs and expenses of and incidental to resale shall immediately thereafter be made good by the particular permitted Aboriginal purchaser to the Lessee; and
  - (e) in the event that a notice of acceptance is not given within the time limit as aforesaid, the Lessee shall then be at liberty to sell the said property or equipment by private contract to any other person for a pecuniary sum being not less than that specified in the notice in writing given pursuant to paragraph (a) or by public auction.
- (2) In this clause "property or equipment used in the operation of the Park" means property or equipment in such categories as is agreed upon between the Land Council and the Lessee.

### **Quiet Enjoyment**

- 11** The Lessee paying the rent hereby reserved and observing and performing the covenants on its part and the conditions contained in this Lease shall during the whole of the term quietly enjoy the Park without any interruption or disturbance by the Lessor or any person claiming by, from under or in trust for the Lessor.

### **Amendment of Act, etc**

- 12** (1) Subject to sub-clause 12(4) hereof, the Lessee and the Lessor agree that the enactment of any Act or the making of any regulations (Gunlom lease only): or the coming into operation of a Plan of Management which is or are:-
- (i) inconsistent with this Lease, (and where, in the case of an Act or Regulations, such Act is or regulations are applicable to the Park); and
  - (ii) substantially detrimental to the interests of the Lessor or Relevant Aboriginals as regards the administration, management or control of the Park,

shall be deemed to be a breach of a fundamental term of this Lease for which this Lease may (subject to sub-clause 12(2)) be terminated on eighteen (18) months notice in writing (“a termination notice”) by the Lessor to the Lessee.

- (2) (i) Where the Lessor by notice in writing advises the Lessee of an alleged breach of sub-clause (1) hereof, the parties shall meet in Darwin or such other place as agreed within thirty (30) days of the receipt of the notice by the Lessee (“the thirty (30) day period”) to discuss whether there has been a breach of sub-clause (1);
  - (ii) where the Lessor is ready, willing and able to meet with the Lessee but the parties do not meet within the thirty (30) day period due to the wilful neglect failure or refusal by the Lessee, then the said alleged breach shall be deemed to be an actual breach of sub-clause (1), provided however that where the failure to meet is occasioned by the Lessor or by factors beyond the control of the Lessee or the Lessor then the parties shall meet at such other time as is mutually agreed upon but in any event within thirty (30) days of the expiration of the initial thirty (30) day period;
  - (iii) where the parties agree within the thirty (30) day period or any extension thereof that the said alleged breach is an actual breach, there shall be deemed to be an actual breach of sub-clause(1);
  - (iv) where the parties meet but do not agree within the thirty (30) day period or any extension thereof that the said alleged breach is an actual breach the question of whether the said alleged breach is an actual breach shall be referred to arbitration pursuant to clause 17;
  - (v) if there is deemed to be an actual breach or if an arbitrator finds that there is an actual breach, the Lessor may as from the date of the deeming or the finding (as the case may be) (“the trigger date”) issue a termination notice.
- (3) Where a termination notice is issued, representatives of the Land Council and the Lessee shall as soon as possible within the period of the notice, meet and enter into bona fide negotiations with a view to the grant of a new lease.
  - (4) Where, within one hundred and eighty (180) days after the trigger date, a termination notice is not issued as provided in sub-clause 12(2) then the Lessor, representatives of the Land Council and the Lessee shall meet to discuss whether to vary any provisions of this Lease including the rent, but not including the term.
  - (5) Clauses 16 and 17 shall not apply to any negotiations entered into under sub-clause 12(3).
  - (6) (i) Where the Act or regulations giving rise to a termination notice is amended prior to termination of this Lease so as to no longer offend against sub-clause 12(1), the said termination notice shall immediately upon commencement of the amending Act or regulation, cease to have any force or effect.

- (ii) Where the parties fail to agree that the amended Act or regulations no longer offend against sub-clause 12(1) the disagreement will upon notice by either party be referred to arbitration pursuant to Clause 17.
  - (iii) Time shall not run with respect to the termination notice from the date of the notice referred to in paragraph 12(6)(ii) until the date of the finding by the arbitrator.
- (7) Without limiting the generality of the meaning of the term “substantially detrimental to the interests of the Lessor or Relevant Aboriginals as regards the administration, management or control of the Park” an actual or proposed transfer, assignment, sublease or parting with possession of the Park or any part of the Park by the Lessee without the consent in writing of the Lessor shall at all times be substantially detrimental to the interests of the Lessor or Relevant Aboriginals as regards the administration, management or control of the Park.

**Park to be managed in accordance with the Act, etc.**

- 13** (1) The Lessor and the Lessee agree that the Park shall be subject to administration, management and control in accordance with this Lease, the Act, regulations made under the Act and with the Plan of Management in force in relation to the Park pursuant to the Act.
- (2) The Lessee covenants that the flora, fauna, cultural heritage and natural environment of the Park shall be preserved, managed and maintained according to the best comparable management practices established for National Parks anywhere in the world or where no comparable management practices exist, to the highest standards practicable.
- (3) Without limiting the generality of sub-clause 13(2):
- (a) the Lessee shall use his best endeavours to control and eradicate infestations of *Mimosa pigra*, *Salvinia molesta* (and *Calatropis procera* – Gunlom lease only) in the Park;
  - (b) the Lessee shall protect known Aboriginal rock art sites from damage caused by natural occurrences including fire and water; and
  - (c) the Lessee shall use his best endeavours to control and eradicate infestations of cane toads (*Bufo marinus*) in the Park. (Gunlom lease only)

**Lessee’s indemnity**

- 14** The Lessee shall indemnify the Lessor, its servants, agents or invitees (to the extent that the Lessor, its servants, agents or invitees is not or are not negligent) against all actions and claims whatsoever that may be brought, made or prosecuted against the Lessor, its servants, agents or invitees in respect of any action or claim arising out of any act or omission (whether negligent or otherwise) of the Lessee, its servants agents or invitees in or in relation to the Park.

**Termination**

- 15** This Lease may be terminated in writing at any time with the agreement of both the Lessor and the Lessee.

## Variation

- 16
- (1) The Lessor and the Lessee may from time to time by agreement in writing add to, substitute for, cancel or vary any of the provisions of this Lease.
  - (2) The Lessee shall at least once every five years meet with the representatives of the Lessor and the Land Council to review the provisions of this Lease excepting the term, and
    - (a) if the Lessor and the Lessee agree upon any variation to this Lease, the Land Council shall direct the Lessor to execute any or all documents necessary or desirable to give full effect to the variation;
    - (b) if the Lessor and the Lessee fail to agree upon any variation to this Lease proposed by either party, the disagreement may, at the option of either party, be referred to arbitration by a barrister or solicitor of ten (10) years standing agreed between the parties or failing agreement, a person nominated by the Chief Justice of the Federal Court of Australia; or if the said Judge fails to nominate an arbitrator within thirty (30) days after having been requested in writing by one of the parties so to do, by an arbitrator nominated by the President for the time being of the Law Council of Australia or its successor;
    - (c) in determining the question of any variation to this Lease, the provisions of the Commercial Arbitration Act (NT) shall apply and the arbitrator shall have regard to the following matters:
      - (i) the preservation and protection of Aboriginal ways of life, culture and tradition;
      - (ii) the interests, proposals, opinions and wishes of the Relevant Aboriginals in relation to the management, use and control of the Park;
      - (iii) the growth and development of Aboriginal social, cultural and economic structures;
      - (iv) freedom of access to the Park by Relevant Aboriginals and their freedom to carry out in the Park rites, ceremonies and other activities in accordance with Aboriginal tradition;
      - (v) the preservation of the natural environment;
      - (vi) the use of the Park for tourist activities; and
      - (vii) the duties, functions and responsibilities of the Lessee in relation to the Park; and
    - (d) notwithstanding any of the foregoing, the arbitrator's determination shall:
      - (i) preserve the benefits and the essential rights conferred on the Lessor by this Lease, and
      - (ii) not reduce the payments or the rates of payments payable in accordance with Clauses 7 and 8.

## Arbitration

- 17 If a dispute arises between the Lessor and the Lessee or between the Land Council and the Lessee in respect of matters to be agreed, formulated, discussed or requested pursuant to the Lease then either party may serve notice upon the other requiring that it submit the dispute to arbitration and thereupon the provisions of paragraph 16(2) (a) to (d) shall apply *mutatis mutandis*.

## Parties to negotiate five years before expiry

- 18 The Lessor and the Lessee agree that they will enter into negotiations for the renewal or extension of the term of this Lease not later than five years before its expiration.

## Research and exchange of Information

- 19 (1) The Lessee agrees to permit and direct persons from time to time chosen by the Lessee, after consultation with the Land Council, being persons employed by the Lessee or under his authority, to assist the Land Council or a person authorised in writing by the Land Council in respect of any reasonable programme involving the identification and recording of Aboriginal sacred sites within the Park.
- (2) The Lessee shall provide reasonable equipment and facilities for persons who are in accordance with sub-clause (1) permitted and directed to assist in the identification and recording of Aboriginal sacred sites within the Park.
- (3) The Lessee agrees to make available to the Chairman of the Land Council or any person authorised in writing by the Land Council, access to all information relating to the Park including research reports sponsored, procured or supported by the Lessee that are in the possession of the Lessee other than information that would be privileged from production in litigation and information the disclosure of which would in the opinion of the Lessee, involve an unreasonable invasion of the privacy of an individual, or which is otherwise exempt from disclosure under the *Freedom of Information Act 1982* whether or not that Act applies to the information.
- (4) The Lessor agrees that the Land Council may make available to the Lessee or a person duly authorised in writing by the Lessee, all information of the Lessor relating to the Park including research reports sponsored, procured or supported by the Land Council that are in the possession of the Land Council other than information that would be privileged from production in litigation and information the disclosure of which would, in the opinion of the Land Council, involve an unreasonable invasion of the privacy of an individual or which is otherwise exempt from disclosure under the *Freedom of Information Act 1982* whether or not that Act applies to the information.
- (5) The use of Aboriginal Cultural Material relating to the Leased Area and which is in the possession, custody or control of the Lessee, shall be subject to the memorandum of understanding dated the twelfth day of May 1995 and made between the Land Council and the Lessee a copy of which is attached hereto as Annexure B. (Gunlom lease only)



## **Developments in the Park**

- 20**
- (1) The Lessor and the Lessee agree that the Land Council and the Lessee shall meet from time to time to formulate written policy in respect of environmental evaluation of proposed developments in the Park.
  - (2) A proposed development shall not take place except in accordance with any policy formulated under this clause.

## **Aboriginal training and employment**

- 21**
- (1) The Lessee agrees:
    - (a) to implement an Aboriginal training programme for Aboriginal persons resident in the Region the broad objectives of which are agreed with the Land Council comprising training in skills relevant to all levels of administration, planning, management and control of the Park;
    - (b) to employ training officers in the Park whenever necessary, and to give preference in employment of such officers to suitably qualified Relevant Aboriginals;
    - (c) subject to giving preference to Relevant Aboriginals, to use its best endeavours to employ in the Park in positions which are appropriate having regard to qualifications acquired in participation in the Aboriginal training programme, all persons who complete a course of the programme or, where such positions are not available, to assist in finding comparable employment;
    - (d) to provide appropriate and reasonable resources (including staff, training, facilities and accommodation) for Aboriginal trainees;
    - (e) in the Aboriginal training programme, to offer a course in ranger training, and land management skills up to and including, where appropriate, those required to fill the positions of District Supervisor and Park Superintendent or alternatively to provide such training by outside placement;
    - (f) to actively seek to achieve that at the earliest practicable opportunity during the term of this Lease the majority of permanent employment positions in the Park are held by suitably qualified Relevant Aboriginals; and
    - (g) to such extent as is practicable, provide for continuing training in appropriate skills including literacy and numeracy for Aboriginal persons employed in permanent positions in the Park.
  - (2) The Lessee agrees: -
    - (a) to procure that from time to time (but no later than 6 months after commencement of duties of any member of the Park staff) each member of the Park staff involved in administration, planning, management and control of the Park attend a cross cultural course the broad objectives of which are agreed with the Land Council;
    - (b) in the Aboriginal training programme and subsequent employment, to place particular emphasis on Aboriginality and Aboriginal land management practices;
    - (c) to take all practicable steps to adjust working hours and conditions to the needs and culture of Aboriginals employed in the Park.

## **Funding**

- 22** (1) Subject to the Act the Lessee shall from monies lawfully available to the Lessee pay to the Board such moneys as are reasonably required for the administration of the Board and for the payment of any reasonable expenses incurred by members of the Board in the performance of their duties (herein collectively referred to as “the administrative costs of the Board”).
- (2) The Lessee shall not make a payment under sub-clause 22 (1) unless and until the Board is empowered to receive and expend such payment.
- (3) This clause does not have operation to the extent that the administrative costs of the Board are met from another source or sources, including an appropriation by the Parliament.

## **Staffing**

- 23** (1) The Lessee will at all times use its best endeavours to maintain staff within the Park at the level and designations of staff requirements provided for in the Plan of Management.
- (2) Subject to the *Public Service Act 1922* and industrial awards and agreements, the Lessee agrees that arrangements existing at the commencement of this Lease in respect of Aboriginal representation on staff selection panels shall continue for the term of this Lease.
- (3) If by operation of law sub-clause 23(2) is held to be of no force or effect, the Lessee agrees to consult with the Land Council concerning the procedures for selection and appointment of any permanent staff in the Park where duties and functions will involve substantial involvement with park administration management or control.
- (4) Where levels of staff in the Park fall significantly below those referred to in subclause 23(1) the Lessee and the Land Council shall meet and discuss matters arising as a result of the staff levels.

## **Liquor Licences**

- 24** Insofar as the Lessee by virtue of any powers vested in it has any control over liquor distribution or consumption in the Park the Lessee shall consult with and have regard to the views of the Land Council in the exercising of those powers.

## **Restrictions on access**

- 25** (1) The Land Council may request the Lessee to restrict access to areas of the Park for the purposes of Aboriginal use of those areas.
- (2) Where the Lessee is empowered to so restrict access to areas of the Park he shall accede to any reasonable request under sub-clause 25(1).
- (3) The Lessee acknowledges that the Leased Area is part of the sacred site known as “Sickness Country” and in so far as his powers and duties under the Act allow he shall use his best endeavours to comply with Relevant Aboriginal tradition regarding access to sacred sites and agrees to establish a protocol with the Relevant Aborigines regarding such access.

- (4) In respect of the parts of the Leased Area which are sacred sites registered under the *Northern Territory Aboriginal Sacred Sites Act 1989* and are shown shaded solid red on the plan attached hereto as Annexure A and in so far as the Lessee's powers and duties under the Act allow, the Lessee shall not permit access by the public nor carry out works such as earthworks, stoneworks or works on Aboriginal rock art thereon save with the prior written permission of the Land Council which may only be given after the Land Council has consulted the Traditional Aboriginal Owners of Sickness Country and is satisfied that they as a group consent. Such permission may be given on reasonable terms and conditions including conditions such as time of entry, persons permitted to enter and/or that persons must be accompanied by a representative of or a cultural adviser selected by such Traditional Aboriginal Owners.
- (5) In respect of the parts of the Leased Area shown hatched in blue on the said plan, the Lessee shall, in so far as practicable, restrict entry by members of the public to those persons who have obtained prior written permission from the Lessee.
- (6) If the Lessor so requests, the Lessee shall provide to the Lessor or his nominee, reasonable funding for such cultural adviser, including but not limited to: a salary equivalent to ASO4 in the Commonwealth Public Service; normal employment overheads; and reasonable travel and accommodation expenses.
- (7) Such permission and conditions of entry to Sickness Country may be incorporated into an agreed Plan of Management if such Traditional Aboriginal Owners so agree.

### **Service of Notices, &c.**

- 26** (1) Any notice, request, consent approval, communication or other document (in this clause called a "communication") to be given under this Lease shall be in writing addressed as follows:
- If to the Lessor – [address]  
 If to the Lessee – [address]  
 If to the Northern Land Council – [address]  
 If to the Board – As notified in writing by the Board  
 or to such other address as the relevant party or body may nominate by notice to each other party or body
- (2) Each communication shall be delivered by hand, or mailed by pre-paid registered post, or sent by telegram or facsimile transmission, to the address of the party or body to which it is being given and shall be deemed to have been given –
- (a) if received before 4:00pm on a business day - when it is received; and
  - (b) if received at any other time - on the business day next following the day of receipt.

### **Definition of terms**

- 27** (1) In this Lease: -
- “Aboriginal” means a person who is a member of the Aboriginal race of Australia;
- “Aboriginal Cultural Material” has the same meaning as in the memorandum of understanding dated 12th May 1995, made between the Land Council and the Lessee a copy of which is attached hereto as Annexure B. (Gunlom lease only)

“Aboriginal Land” has the same meaning as in the Land Rights Act;

“Aboriginal tradition” has the same meaning as in the Land Rights Act,

“the Act” means the National Parks and Wildlife Conservation Act 1975;

“Board” means the Board established in relation to Kakadu National Park in accordance with the Act;

“Cultural Adviser” means the person nominated by the Traditional Aboriginal Owners in accordance with the provisions of sub-clause 25(4). (Gunlom lease only)

“Former Lease” means those leases in the Registrar Book at the Land Titles Office, Darwin in the Northern Territory of Australia being instruments No. 79731, No. 79732 and No. 79733. (Kakadu lease only)

“Land Council” means Northern Land Council established under the Land Rights Act or any other Land Council that may be established for the area in accordance with section 21 of the Land Rights Act;

“Land Rights Act” means the Aboriginal Land Rights (Northern Territory) Act 1976;

“Land Trust” means an Aboriginal Land Trust constituted under section 4 of the Land Rights Act;

“Leased Area” means the area of land the subject of this Lease being part of Northern Territory Portion 4774 more particularly shown on plan S95/212 which has been deposited at the Land Titles Office, Darwin, being the whole of the land comprised in the Grant Registered Volume 477 folio 049. (Gunlom lease only)

“Lessor” includes the Lessor’s successors, assigns, servants, agents and contractors. (Gunlom lease only)

“Lessee” includes the Lessee’s successors, permitted assigns, employees, licensees, invitees, servants, agents and contractors. (Gunlom lease only)

“the Park” unless the context otherwise admits, means so much of Kakadu National Park as is leased to the Lessee from an Aboriginal Land Trust whether by this Lease or another lease;

“Region” has the same meaning as in paragraph (1) of the definition of “Region” in section 3 of the Act;

“Relevant Aboriginals” means all the traditional Aboriginal owners of the Park and the 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 whether or not those rights are qualified as to place, time, circumstances, purpose, permission or any other factor and the Aboriginals permitted by them to reside in the Park;

“Relevant Aboriginal Association” means any incorporated Aboriginal Association or group whose members live in or are Relevant Aboriginals in relation to the Park;

“Sickness Country” means the Bula Sickness Country as identified on the map attached as Annexure A to this Agreement. (Gunlom lease only)

“sacred site” has the same meaning as in the Land Rights Act; “Plan of Management” has the same meaning as in the Act;

“Traditional Aboriginal Owners” has the same meaning as in the Land Rights Act;

(2) Unless the contrary intention appears this Lease shall be interpreted in accord with the provisions of the Acts Interpretation Act 1901 of the Commonwealth of Australia, where applicable, as if this Lease were an Act.

IN WITNESS WHEREOF the parties have executed this Memorandum of Lease.

the 27th day of March 1991 ([Kakadu and Jabiluka leases](#))

the 20th day of May 1996 ([Gunlom lease only](#)).

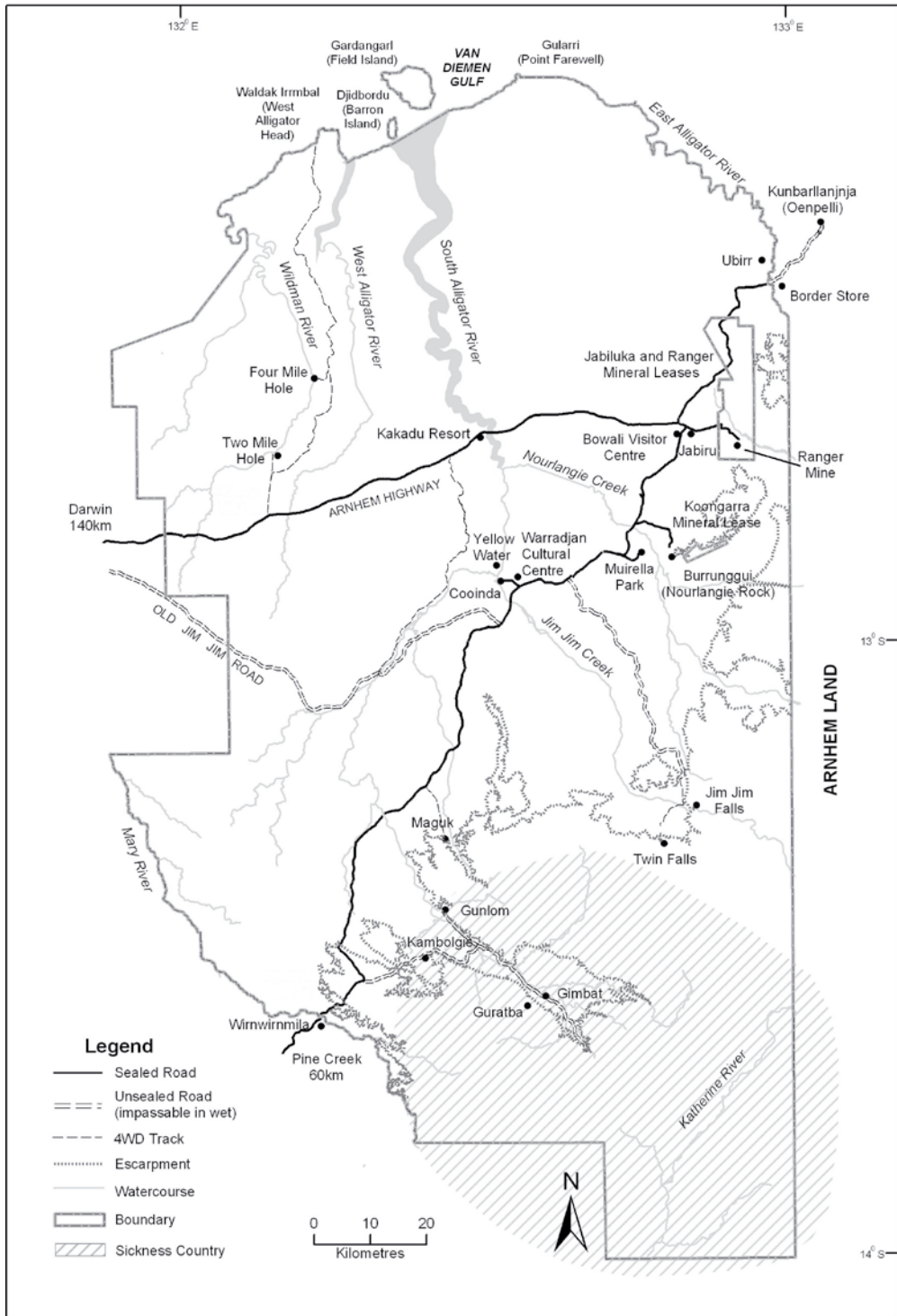
#### **Annexure A**

Plan of Leased Area showing Sickness Country, Registered sacred sites and areas where public access need not be by permit.

#### **Annexure B**

Memorandum of Understanding of 12 May 1995

# Annexure A — Sickness Country



## Annexure B

### To Lease by Gunlom Aboriginal Land Trust to the Director of National Parks

## MEMORANDUM OF UNDERSTANDING

### REGARDING THE CONTROL OF ABORIGINAL CULTURAL MATERIAL IN KAKADU NATIONAL PARK

- 1 This Memorandum of Understanding sets out agreed arrangements for the control of Aboriginal cultural material from Kakadu National Park which is within the custody, power or control of the Director of National Parks
- 2 For the purpose of this memorandum;  
“Aboriginal” means a person who is a member of the Aboriginal race of Australia.  
“Aboriginal Cultural Material” includes;
  - a) archaeological sites, rock art (including paintings, carvings, engravings and imprints), wooden and stone implements and other physical artefacts produced by Aboriginal people as a result of the traditional use of land within Kakadu National Park;
  - b) photographs (including negatives), video and cinemagraphic recordings of Aboriginal people, their living areas, archaeological sites, rock art and physical material;
  - c) audio recordings of Aboriginals;
  - d) unpublished printed material, field notes, maps and computer data containing information relating to the traditional use or occupation of Kakadu by Aboriginals;  
and
  - e) human, animal and plant remains that are of significance to Aboriginal people within the possession, custody or control of the Director.

“the Act” means the *Environment Protection and Biodiversity Conservation Act 1999*.

“the Committee” means the Bininj Heritage Management Committee established by the traditional owners of Kakadu to act on their behalf in relation to the control of their cultural heritage or such other body as is approved by the traditional Aboriginal owners of Kakadu, as a group, to fulfil that function.

“the Director” means the Director of National Parks and includes his servants, agents and delegates.

“Kakadu” means Kakadu National Park.

“Recording” means any physical recording, representation or depiction of Aboriginal cultural material or ceremony, and includes written records, pictorial representations, audio tapes, photographs, films, video tapes, and digital recordings.

“Regulations” means the *Environment Protection and Biodiversity Conservation Regulations 2000*.

- 3 This memorandum is subject to and should be read in accordance with the Act, the Regulations and the Plan of Management for Kakadu.
- 4 The terms used in the memorandum are to have the same meaning as in the Act and the Regulations unless otherwise defined herein.
- 5 Under the Act a function of the Director is the administration, management and control of Kakadu National Park.
- 6 It is the function of the Northern Land Council to protect the interests of traditional Aboriginal owners of, and other Aboriginals interested in, Aboriginal Land in its area. It is also a function of the Northern Land Council to assist Aboriginals in taking measures likely to assist in the protection of sacred sites on land (whether or not Aboriginal Land) in its area.
- 7 The Director will as soon as practicable establish and thereafter maintain, in a manner approved by the Committee, a register of all Aboriginal cultural material in Kakadu.
- 8 The Director will in conjunction with, and subject to the approval of, the Committee develop a protocol for access to the register.
- 9 The Director will take all practicable steps to ensure that;
  - a) members of the public who visit Kakadu are made aware that Aboriginal people are sensitive to being photographed and to their land, living areas, sacred sites and other cultural material such as ceremonies or rock art being photographed;
  - b) any Recording made by Kakadu staff, contractors and consultants in the course of their official duties is only to be on material owned and supplied by the Director and that those materials remain the property of and in the control of the Director, for access and use only in accordance with the terms of this memorandum and as approved by the Committee;
  - c) any Recording of Aboriginal Cultural Material will not be published without the consent of the Committee;
  - d) all cultural research permits issued in Kakadu have the prior approval of the Committee;
  - e) it shall be made a condition of grants of all cultural research permits that the permit holders acknowledge that any Recording remains under the control of the Director and cannot be used or published without his prior written consent and the Committee's approval;
  - f) it shall be made a condition of grants of all commercial film permits that the use of any Recording for advertising purposes must have the prior written consent of the Director and the Committee's approval.
- 10 The Director will do everything practicable to provide appropriate storage areas for Aboriginal cultural material in Kakadu.
- 11 The Director will support the efforts of traditional owners and other Aboriginal people to secure the return of Aboriginal cultural material that has been removed from Kakadu.



- 12 The Directors will not transfer control of any Aboriginal cultural material to any other person without the consent of the Committee.
- 13 The Director and the Committee will develop a protocol for staff, contractors and consultants dealings with Aboriginal cultural material and Recordings and the Director will require staff, contractors and consultants to give their written agreement to abide by the protocol.
- 14 The parties acknowledge that nothing in this memorandum is intended to affect any native title to Aboriginal cultural material.
- 15 The parties to this memorandum may, by agreement, review and if necessary modify or vary the terms of this memorandum from time to time as necessary.

DATED the Twelfth day of May 1995.

## Appendix B.

### World Heritage attributes of Kakadu National Park

The Convention Concerning the Protection of the World Cultural and Natural Heritage is concerned with identifying, protecting and conserving cultural or natural features of outstanding universal value. Kakadu is listed as a World Heritage area under the following cultural and natural criteria:

#### Cultural criteria

**Criterion (i)**      **Represent a unique artistic achievement, a masterpiece of the creative genius and**

**Criterion (vi)**      **Be directly or tangibly associated with events or with ideas or beliefs of outstanding universal significance**

The cultural sites of Kakadu National Park exhibit six attributes that place them among the greatest bodies of sites in the world.

- The cultural sites within the Park are of great antiquity and have a continuous temporal span from the Pleistocene Epoch until the present.
- The sites exhibit great diversity, both in space and through time, yet the overwhelming picture is one of continuous cultural development.
- The art sites in themselves represent a unique artistic achievement.
- The cultural tradition demonstrated in the art and archaeological record is a living tradition that continues today.
- The state of preservation of sites is generally very good and, because the sites are protected by national park status, this level of preservation is likely to continue.
- The sites compare favorably with similar types of sites in Australia and elsewhere.

This combination of attributes makes Kakadu rare, if not unique, in the world.

#### Natural criteria

Kakadu National Park contains natural features of such outstanding diversity and value that they are considered to meet three of the natural criteria for a World Heritage property.

**Criterion (ii)**      **Outstanding examples representing significant ongoing geological processes, biological evolution and man's interaction with his natural environment**

Kakadu National Park contains examples representing ongoing geological processes, biological evolution and evidence of human interaction with the natural environment.

- Kakadu National Park incorporates coastal riverine and estuarine floodplains, sites of ongoing geological processes.

- The Park represents a series of interacting ecosystems and contains a wide variety of environmental gradients and contiguous landscapes, within which ecological processes are perpetuated.
- The archaeological remains and rock art of Kakadu National Park bear remarkable witness to past environments in northern Australia and to human interaction with these environments.
- The early art illustrates species that are long extinct and provides a record of the changing species composition of the various environments within the region over tens of thousands of years.
- Archaeological evidence indicates that Aboriginal people actively managed the landscape, for example, through the use of fire.

**Criterion (iii) Unique, rare or superlative natural phenomena, formations or features or areas of exceptional beauty**

Kakadu National Park contains features of great natural beauty and magnificent, sweeping landscapes.

- The Park contains internationally important wetlands, which are of considerable conservation significance for many species.
- The Park incorporates almost the entire catchment of a tropical river system.
- The spectacular escarpment and its outliers extend for hundreds of kilometres. Large waterfalls surge over the escarpment edge during the wet season, and small streams have cut cool, moist gorges that are inhabited by a once more widespread tropical and ancient flora.
- The escarpment has provided natural galleries in which Aboriginal people have been able to record and express their culture and religion for thousands of years.
- Views from the plateau are breathtaking: a vast expanse of eucalypt forest and woodland intermingled with a diversity of other habitats in close proximity to each other.
- The southern-most landscape incorporates low rolling hills of diverse geology, confined creeks and rivers, which are important dry season refuges for much of the Park's wildlife, and vegetation types that differ from those of the Park's northern landscape.

**Criterion (iv) The most important and significant habitats where species of plants and animals of outstanding universal value from the point of view of science and conservation still survive**

Kakadu National Park plays a vital role in ensuring the continued existence of many species of outstanding conservation and scientific value, and is regarded as a key conservation region for Australian biota.

- Kakadu National Park is representative of the ecosystems of a vast area of northern Australia and contains habitat types not found anywhere else.
- The Park has the widest range of habitats and the greatest species diversity of any similar-sized area in monsoonal north Australia.

- Over 50 species of flora in the Park are of particular conservation significance and over 40 of these have been listed by a national consensus of rare or threatened species as having special significance.
- For rare and endangered mammals, the northern part of the Northern Territory (where Kakadu is located) is one of four regions in Australia of comparable diversity.
- Of the many fauna species of particular conservation significance in Kakadu National Park, at the time of preparing this plan 14 have been recognised by national and international authorities as having special status; and 117 migratory species are listed under international conservation agreements.
- A number of fauna species in the Park are of outstanding scientific value because they are of taxonomic or zoogeographic significance.

### **Integrity**

The integrity of the natural attributes of the property is protected by the Park's large size, its national park status, and its management for conservation, which ensure that:

- geological evolution of the coastal riverine plains will continue with minimal modern development in that environment or its upstream areas
- the outstanding natural phenomena, formations and features and areas of exceptional natural beauty will be protected
- biological evolution in the ecological systems of the Park will continue in a natural manner with minimal disturbance from modern development
- the extensive record of Aboriginal people's interaction with the natural environment will be conserved
- suitable management measures to conserve Aboriginal archaeological and art sites will continue
- those species in the Park that represent the various elements of the Australian biota will be conserved subject to the natural changes in ecological systems.

## Appendix C.

### Key result area outcomes relevant to Kakadu National Park

The following KRA outcomes developed by the Director of National Parks are relevant to Kakadu National Park.

#### **KRA 1: Natural heritage management**

- 1.1 Natural values for which the Commonwealth reserves were declared and/or recognised have been maintained.
- 1.2 Populations of EPBC Act listed threatened species and their habitats have been conserved.

#### **KRA 2: Cultural heritage management**

- 2.1 Cultural heritage values, both Indigenous and non-Indigenous, for which the parks were declared and 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.

#### **KRA 3: Joint management**

- 3.1 Joint management is being 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.
- 3.2 Traditional owners and boards of management are increasingly satisfied with park management.

#### **KRA 4: Visitor management and park use**

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

**KRA 5: Stakeholders and partnerships**

- 5.1 Volunteers contribute to area management based on clearly defined roles.
- 5.2 Stakeholders, eg neighbours, state agencies and park user groups, are involved in, and contribute effectively to, park management activities.
- 5.3 Commercial and other partnership opportunities are encouraged and evaluated.
- 5.4 National Reserve System grants under the Natural Heritage Trust are delivered in accordance with agreed strategies and policies.

**KRA 6: Business management**

- 6.1 Planning and decision-making are based on best available information, legislative obligations, Parks Australia policy and social justice principles.
- 6.2 Financial and business management is 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.
- 6.5 Ministerial directions and other obligations are complied with.

## Appendix D.

### Threatened species occurring in Kakadu National Park

Common name	Scientific name	EPBC Act	NT status	Habitat
<b>Plants</b>				
	<i>Acacia</i> D19063 Graveside Gorge	Not listed	NA*	Sandstone
	<i>Boronia laxa</i>	VU	NT	Sandstone
	<i>Boronia rupicola</i>	VU	NT	Sandstone
	<i>Boronia suberosa</i>	VU	VU#	Sandstone
	<i>Boronia verecunda</i>	VU	NT	Sandstone
	<i>Boronia xanthastrum</i>	VU	NT	Sandstone
	<i>Calytrix inopinata</i>	Not listed	VU#	Sandstone
	<i>Cycas armstrongii</i>	Not listed	VU	Lowland woodland
	<i>Dubouzetia australiensis</i>	Not listed	EN	Sandstone
	<i>Gleichenia dicarpa</i>	Not listed	VU	Sandstone
	<i>Helicteres</i> D21039 <i>linifolia</i>	Not listed	VU#	Lowland woodland
	<i>Hibiscus brennanii</i>	Not listed	VU	Lowland woodland
	<i>Lithomyrtus linariifolia</i>	Not listed	VU	Sandstone
	<i>Malaxis latifolia</i>	Not listed	VU	Lowland rainforest
	<i>Monochoria hastata</i>	Not listed	VU	Swamp
	<i>Sauropus filcinus</i>	VU	DD	Sandstone
	<i>Utricularia subulata</i>	Not listed	EN	Lowland wet heath
<b>Insects</b>				
Northern grassdart butterfly	<i>Taractrocera ilia ilia</i>	Not listed	VU	Sandstone

Common name	Scientific name	EPBC Act	NT status	Habitat
<b>Fish</b>				
Freshwater tongue sole	<i>Cynoglossus heterolepis</i>	Not listed	EN	Freshwater river
Speartooth shark	<i>Glyphis</i> sp.A.	CE	EN	Estuarine; freshwater river
Northern river shark	<i>Glyphis</i> sp. C.	EN	EN	Estuarine; freshwater river
Dwarf sawfish	<i>Pristis clavata</i>	Not listed	VU	Marine; estuarine; freshwater river
Freshwater sawfish	<i>Pristis microdon</i>	VU	DD	Estuarine; freshwater river
<b>Reptiles</b>				
Loggerhead turtle	<i>Caretta caretta</i>	EN	EN	Coastal and marine
Green turtle	<i>Chelonia mydas</i>	VU	LC	Coastal and marine
Olive Ridley turtle	<i>Lepidochelys olivacea</i>	EN	DD	Coastal and marine
Flatback turtle	<i>Natator depressus</i>	VU	DD	Coastal and marine
Pig-nosed turtle	<i>Carettochelys insculpta</i>	(VU)**	NT	Freshwater river
Yellow-snouted gecko	<i>Diplodactylus occultus</i>	Not listed	VU	Lowland woodland
Arnhemland egernia	<i>Egernia obiri</i>	Not listed	DD*	Sandstone
Oenpelli python	<i>Morelia oenpelliensis</i>	Not listed	VU	Sandstone
<b>Birds</b>				
Emu	<i>Dromaius novaehollandiae</i>	Not listed	VU	Lowland woodland
Red goshawk	<i>Erythroriorchis radiatus</i>	VU	VU	Lowland woodland
Australian bustard	<i>Ardeotis australis</i>	Not listed	VU	Lowland woodland; grassland
Partridge pigeon	<i>Geophaps smithii smithii</i>	VU	NT	Lowland woodland
Masked owl	<i>Tyto novaehollandiae kimberli</i>	VU	NT	Lowland woodland
White-throated grasswren	<i>Amytornis woodwardi</i>	Not listed	VU	Sandstone
Yellow chat	<i>Epthianura crocea tunneyi</i>	Not listed	EN	Floodplain



Common name	Scientific name	EPBC Act	NT status	Habitat
Northern shrike-tit	<i>Falcunculus (frontatus) whitei</i>	VU	DD	Lowland woodland
Gouldian finch	<i>Erythrura gouldiae</i>	EN	EN	Lowland woodland
<b>Mammals</b>				
Northern quoll	<i>Dasyurus hallucatus</i>	(VU)**	VU	Sandstone; lowland woodland
Northern brush-tailed phascogale	<i>Phascogale (tapoatafa) pirata</i>	Not listed	VU	Lowland woodland
Golden bandicoot	<i>Isodon auratus auratus</i>	VU	EN	Sandstone
Bare-rumped sheath-tail bat	<i>Saccolaimus saccolaimus nudicluniatus</i>	CE	DD	Lowland woodland
Arnhem leaf-nosed bat	<i>Hipposideros (diadema) inornata</i>	Not listed	VU	Sandstone
Brush-tailed rabbit-rat	<i>Conilurus penicillatus</i>	Not listed	VU	Lowland woodland
Golden-backed tree-rat	<i>Mesembriomys macrurus</i>	VU	EN	Sandstone
Water mouse (false water-rat)	<i>Xeromys myoides</i>	VU	DD	Floodplain; swamps; mangroves
Arnhem rock-rat	<i>Zyzomys maini</i>	Not listed	VU	Sandstone

**Note:** This list may be amended during the life of the Plan as new information becomes available.

CE: Critically endangered      EN: Endangered      VU: Vulnerable

For Northern Territory status only: NT: Near threatened      LC: Least concern      DD: Data deficient

\* These species are not currently listed, but are likely to be added in the near future.

\*\* These species were nominated as Vulnerable in 2004, and are now in the process of assessment.

# Down-listing proposed.

(Woinarski 2004)

## Appendix E.

### EPBC Act listed migratory species occurring in Kakadu National Park

Common name	Scientific name	CAMBA	JAMBA	Bonn
<b>Reptiles</b>				
Saltwater crocodile	<i>Crocodylus porosus</i>			√
Loggerhead turtle	<i>Caretta caretta</i>			√
Green turtle	<i>Chelonia mydas</i>			√
Olive Ridley turtle	<i>Lepidochelys olivacea</i>			√
Flatback turtle	<i>Natator depressus</i>			√
<b>Birds</b>				
Wandering whistling-duck	<i>Dendrocygna arcuata</i>			
Plumed whistling-duck	<i>Dendrocygna eytoni</i>			
Freckled duck	<i>Stictonetta naevosa</i>			
Black swan	<i>Cygnus atratus</i>			
Radjah shelduck	<i>Tadorna radjah</i>			
Green pygmy-goose	<i>Nettapus pulchellus</i>			
Pacific black duck	<i>Anas superciliosa</i>			
Grey teal	<i>Anas gracilis</i>			
Garganey	<i>Anas querquedula</i>			
Pink-eared duck	<i>Malacorhynchus membranaceus</i>			
Hardhead	<i>Aythya australis</i>			
Brown booby	<i>Sula leucogaster</i>	√	√	
Great frigatebird	<i>Fregata minor</i>	√	√	
Lesser frigatebird	<i>Fregata ariel</i>	√	√	
Eastern reef egret	<i>Egretta sacra</i>	√		
Great egret	<i>Ardea alba</i>	√	√	
Cattle egret	<i>Ardea ibis</i>	√	√	
Glossy ibis	<i>Plegadis falcinellus</i>	√		
Osprey	<i>Pandion haliaetus</i>			
Pacific baza	<i>Aviceda subcristata</i>			
Black-shouldered kite	<i>Elanus axillaris</i>			

Common name	Scientific name	CAMBA	JAMBA	Bonn
Letter-winged kite	<i>Elanus scriptus</i>			
Square-tailed kite	<i>Lophoictinia isura</i>			
Black-breasted buzzard	<i>Hamirostra melanosternon</i>			
Black kite	<i>Milvus migrans</i>			
Whistling kite	<i>Haliastur sphenurus</i>			
Brahminy kite	<i>Haliastur indus</i>			
White-bellied sea-eagle	<i>Haliaeetus leucogaster</i>	√		
Spotted harrier	<i>Circus assimilis</i>			
Swamp harrier	<i>Circus approximans</i>			
Brown goshawk	<i>Accipiter fasciatus</i>			
Grey goshawk	<i>Accipiter novaehollandiae</i>			
Collared sparrowhawk	<i>Accipiter cirrhocephalus</i>			
Red goshawk	<i>Erythrotriorchis radiatus</i>			
Wedge-tailed eagle	<i>Aquila audax</i>			
Little eagle	<i>Hieraaetus morphnoides</i>			
Brown falcon	<i>Falco berigora</i>			
Australian hobby	<i>Falco longipennis</i>			
Grey falcon	<i>Falco hypoleucos</i>			
Black falcon	<i>Falco subniger</i>			
Peregrine falcon	<i>Falco peregrinus</i>			
Nankeen kestrel	<i>Falco cenchroides</i>			
Sarus crane	<i>Grus antigone</i>	√		
Brolga	<i>Grus rubicunda</i>			
Latham's snipe	<i>Gallinago hardwickii</i>	√	√	√
Swinhoe's snipe	<i>Gallinago megala</i>	√	√	√
Black-tailed godwit	<i>Limosa limosa</i>	√	√	√
Bar-tailed godwit	<i>Limosa lapponica</i>	√	√	√
Little curlew	<i>Numenius minutus</i>	√	√	√
Whimbrel	<i>Numenius phaeopus</i>	√	√	√
Eastern curlew	<i>Numenius madagascariensis</i>	√	√	√
Marsh sandpiper	<i>Tringa stagnatilis</i>	√	√	√

Common name	Scientific name	CAMBA	JAMBA	Bonn
Common greenshank	<i>Tringa nebularia</i>	√	√	√
Wood sandpiper	<i>Tringa glareola</i>	√	√	√
Terek sandpiper	<i>Xenus cinereus</i>	√	√	√
Common sandpiper	<i>Actitis hypoleucos</i>	√	√	√
Grey-tailed tattler	<i>Heteroscelus brevipes</i>	√	√	√
Ruddy turnstone	<i>Arenaria interpres</i>	√	√	√
Great knot	<i>Calidris tenuirostris</i>	√	√	√
Red knot	<i>Calidris canutus</i>	√	√	√
Sanderling	<i>Calidris alba</i>	√	√	√
Red-necked stint	<i>Calidris ruficollis</i>	√	√	√
Pectoral sandpiper	<i>Calidris melanotos</i>		√	√
Sharp-tailed sandpiper	<i>Calidris acuminata</i>	√	√	√
Curlew sandpiper	<i>Calidris ferruginea</i>	√	√	√
Broad-billed sandpiper	<i>Limicola falcinellus</i>	√	√	√
Black-winged stilt	<i>Himantopus himantopus</i>			
Red-necked avocet	<i>Recurvirostra novaehollandiae</i>			
Grey plover	<i>Pluvialis squatarola</i>	√	√	√
Ringed plover	<i>Charadrius hiaticula</i>	√	√	√
Little ringed plover	<i>Charadrius dubius</i>	√		√
Lesser sand plover	<i>Charadrius mongolus</i>	√	√	√
Greater sand plover	<i>Charadrius leschenaultii</i>	√	√	√
Oriental plover	<i>Charadrius veredus</i>		√	√
Black-fronted dotterel	<i>Elseyonis melanops</i>			
Red-kneed dotterel	<i>Erythronys cinctus</i>			
Masked lapwing	<i>Vanellus miles</i>			
Oriental pratincole	<i>Glareola maldivarum</i>	√	√	
Caspian tern	<i>Sterna caspia</i>	√	√	
Lesser crested tern	<i>Sterna bengalensis</i>	√		
Black-naped tern	<i>Sterna sumatrana</i>	√	√	
Common tern	<i>Sterna hirundo</i>	√	√	
Little tern	<i>Sterna albifrons</i>	√	√	

Common name	Scientific name	CAMBA	JAMBA	Bonn
Bridled tern	<i>Sterna anaethetus</i>	√		
White-winged black tern	<i>Chlidonias leucopterus</i>	√	√	
Oriental cuckoo	<i>Cuculus saturatus</i>	√	√	
White-throated needletail	<i>Hirundapus caudacutus</i>	√	√	
Fork-tailed swift	<i>Apus pacificus</i>	√	√	
Rainbow bee-eater	<i>Merops ornatus</i>		√	
White-browed robin	<i>Poecilodryas superciliosa</i>			
Northern shrike-tit	<i>Falcunculus whitei</i>			
Cicadabird	<i>Coracina tenuirostris</i>			
Leaden flycatcher	<i>Myiagra rubecula</i>			√
Restless flycatcher	<i>Myiagra inquieta</i>			√
Arafura fantail	<i>Rhipidura dryas</i>			√
Yellow wagtail	<i>Motacilla flava</i>	√	√	
Grey wagtail	<i>Motacilla cinerea</i>	√		
Barn swallow	<i>Hirundo rustica</i>	√	√	
Gouldian finch	<i>Erythrura gouldiae</i>			
Clamorous reed-warbler	<i>Acrocephalus australis</i>			
Tawny grassbird	<i>Megalurus timoriensis</i>			
Rufous songlark	<i>Cincloramphus mathewsi</i>			
Brown songlark	<i>Cincloramphus cruralis</i>			
Zitting cisticola	<i>Cisticola juncidis</i>			
Golden-headed cisticola	<i>Cisticola exilis</i>			
<b>Mammals</b>				
Dugong	<i>Dugong dugon</i>			√

CAMBA: China–Australia Migratory Birds Agreement;

JAMBA: Japan–Australia Migratory Birds Agreement; Bonn: Bonn Convention

(Woinarski 2004)

## Appendix F.

### Ramsar information sheet

Site: Kakadu National Park (Stage one & components of Stage three)

**Designation date:** 12/06/1980

**Coordinates:** 12°40'S 132°45'E

**Elevation:** 0–400 m

**Area:** 683 000 ha

**Location:** The site is situated approximately 220 km east of the city of Darwin, in the Northern Territory.

**Criteria:** (1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c): **1, 2, 3, 4, 5, 6**

**Importance:** The floodplains are outstanding examples of their types in the monsoon tropics. Together with the West Alligator and Wildman rivers in the adjoining wetland of Kakadu, they are the only such river systems under statutory conservation management in Australia. The site has a high diversity in flora and fauna. The East Alligator River supports belts of mangrove forest, including 75 per cent of Australia's mangrove species. Eight fish species with narrowly restricted ranges (eg *Melanotaenia exquisita*, *Pingalla midgleyi*), have been recorded. Breeding populations of the crocodiles *Crocodylus porosus* and *C. johnstoni* also occur. Other fauna of particular conservation importance includes the turtle *Carettochelys insculpta*, the frog *Megistolotes lignarius* and the mammals *Xeromys myoides* and *Mesembriomys macrurus*. Between August and October up to one million waterbirds of more than 60 species gather on the floodplains, notably those of Nourlangie Creek (one of the major seasonal creeks), including especially large numbers of *Anseranas semipalmata* and *Dendrocygna arcuata*. These and other species breed in the site, but most waterbirds using the area are dry season migrants. Thirty-five species of wader have been recorded, including many winter sub-Arctic migrants, whose first Australian landfall is the Kakadu area.

**Wetland types:** A,B,E,F,G,H,I,K,L,M,N,R,Sp,Tp,Ts,Xp,6 (dominance unspecified).

The site is a mosaic of contiguous wetlands comprising the catchments of two large river systems, the East and South Alligator Rivers. The two rivers rise on a sandstone plateau, drop to the lowlands via rocky gorges and waterfalls, then meander through extensive floodplains associated with the perennial East Alligator River and seasonal creeks. Approximately 43 490 ha (6 per cent) of the National Park is wetland.

**Biological/ecological notes:** The floodplain vegetation is composed mainly of grass and sedge communities, with freshwater mangroves or *Melaleuca* swamps along stream and lagoon edges, while lilies and ferns occur in the deeper permanent lagoons. The tidal mudflats are largely bare of vegetation except for the inland zone where an association of samphire, sedges and grasses develops. Some 59 fish species are recorded in the site, including the eight range restricted species mentioned above. Notable species include the birds *Tadorna radjah*, *Tyto longimembris*, *Halcyon chloris*, *Ephthianura crocea*, and the mammal *Craterocephalus marianae*.

**Hydrological/physical notes:** The Park straddles the western edge of the Arnhem Land Plateau where scarp retreat and lowland erosion have formed a diverse landscape of escarpment, broken hills, valleys and extensive floodplains. The Pine Creek geosyncline is the dominant regional structure with which are associated uranium and other ore bodies. The South Alligator trough is a secondary tectonic depression with the East Alligator River on its eastern boundary. The Park encloses most of the catchment of the perennial East and South Alligator rivers. Other large floodplains are associated with Nourlangie, Jim Jim and Barramundi creeks. Surface waters are generally very soft. The climate is monsoonal with a hot wet season from November to March accounting, on average, for 90 per cent of the average annual rainfall which ranges from approximately 1300–1565 mm. Mean monthly temperatures (°C) range from the low 20s to mid 30s. The coolest months are in the dry season. By far the largest component of the wetlands is the floodplain complex associated with the perennial East Alligator River and the seasonal creeks, notably Nourlangie Creek. Up to 29 315 ha of floodplain may be inundated during the wet season. The floodplain begins to dry out in May, with the floodwater retreating into lagoons and billabongs. The rivers become tidal in their lower reaches with estuarine flats.

**Human uses:** Ownership of most of the land is vested in the Kakadu Aboriginal Lands Trust, managed by the Northern Land Council on behalf of traditional Aboriginal land owners. Stage one of Kakadu National Park was gazetted in 1979 under the provisions of the *National Parks and Wildlife Conservation Act 1975*, and in 1978 the land was leased by the traditional owners to the Director of National Parks and Wildlife for 99 years. The eastern part of the Park abuts the Arnhem Land Aboriginal Land. Most of the rest is surrounded by Stages two and three of Kakadu National Park. An easily sustained level of hunting and gathering by Aboriginal people living in and around the site takes place in accordance with long-standing tradition. They place high economic and cultural values on the wetland and surrounding catchment. Various, high values are perceived nationally and internationally for conservation, mining, tourism, education and research. The two principal uses of the wetlands within the National Park are conservation and tourism. Some 250 000 tourists visit the Park annually, a large proportion of whom visit some of the wetlands. Courses are offered to train tour operators in park interpretation. There are audio-visual displays and brochures. Pamphlets and books are regularly produced. Induction courses for staff from the adjacent mine are provided, and interpretative rangers give public talks during the peak tourist season (June to September). In the surroundings of the site uranium mining takes place. Commercial barramundi fishing takes place in the sea surrounding the site.

**Conservation measures:** Most of the catchments of the wetlands associated with the two perennial river systems are part of the National Park, as are approximately 60 per cent of the East Alligator floodplains and the seasonal creek floodplains. The Kakadu National Park Board of Management manages the Park. Management plans are required by law, and are implemented and under continuous review. Enforcement of comprehensive legislation is effective. Feral livestock, particularly buffalo *Bubalus bubalis* which in the past had modified floodplain ecosystems, are controlled and current densities are low. Extensive infestations of weeds *Mimosa pigra* and *Salvinia molesta* have been greatly reduced but not exterminated. Hunting is prohibited except by Aboriginal people and for feral animal control. Controlled recreational fishing is permitted. Fire management is designed to replicate traditional Aboriginal burning practices.

**Adverse factors:** Mining of uranium takes place in the catchment, beyond the National Park and Ramsar Site boundaries, but environmental controls have prevented damage to the wetlands. Still, the possible effects of mining, the known on-site deposits of uranium, gold, tin and copper remain controversial. Commercial fishing takes place offshore but probably has an insignificant impact upon the rivers and estuaries. Ecosystem modifications caused by feral livestock and the invasive exotic plants *Mimosa pigra* and *Salvinia molesta* have been reduced in recent years but require continuous intervention.

**Site management:** 1. Kakadu National Park Board of Management, Kakadu National Park, PO Box 71, Jabiru NT 0886, Australia. 2. Director of National Parks, PO Box 787, Canberra, ACT, 2601.

(Based on the 1998 Ramsar Information Sheet)

**Site:** Kakadu National Park (Stage two)

**Designation date:** 15/09/1989

**Coordinates:** 12°30'S 132°30'E

**Elevation:** 0–400 m

**Area:** 692 940 ha

**Location:** Kakadu National Park is situated in the Northern Territory, approximately 190 km east of Darwin.

**Criteria:** (1a, 1c, 2b, 2c, 3a, 3b, 3c): **1, 3, 4, 5, 6**

**Importance:** The three river systems of the Kakadu Stage two wetlands are outstanding examples of the series of large rivers of the Torresian monsoonal biogeographic region. The site is of great importance to waterbirds. Over two million waterbirds of more than 60 species use the wetlands for breeding, staging or wintering. The site is the first landfall for migrating birds from Antarctica. It regularly hosts over 1 per cent of the populations of goose *Anseranas semipalmata* and duck *Dendrocygna arcuata*.

**Wetland types:** M,N,P,A,B,E,F,G,H,I,R,Sp,Tp,Xp (in descending order of dominance). This wetland comprises extensive seasonal floodplains, estuaries, tidal flats and offshore islands. By far the largest component of these wetlands is the floodplain complex associated with the three large perennial rivers and the seasonal creeks. The rivers are tidal in their lower reaches and associated with extensive tidal flats formed from river-borne mud. Samphire and paperbark swamps also occur in large parts of this wetland. The Wildman and West Alligator rivers support wide bands of mangrove forest along their tidal reaches, as does Field Island.

**Biological/ecological notes:** The extensive tidal mudflats are largely bare of vegetation except for the inland zone where an association of samphire, sedges and grasses develops. Some 22 of the 29 species of Australian mangrove occur in these forests. The vegetation is predominantly grass and sedge communities with freshwater mangrove or paperbark *Melaleuca* swamps along stream and lagoon edges. Lilies and ferns occur in the deeper permanent lagoons. During the dry season, the floodplains are most intensively used by migratory waterbirds. Between August



and October, up to two million waterbirds accumulate on the floodplains, notably that of Magela Creek. More than 60 species of waterbird occur. Many species breed in the wetlands, but most species are dry season migrants. Thirty-five species of wader have been recorded, including many winter migrants to the sub-Arctic, whose first Australian landfall is the Kakadu area. Fifty-nine fish species are known from this wetland, including eight with narrowly restricted ranges. Breeding populations of both freshwater and estuarine crocodiles occur. The wetland is either noted for, or important to, the conservation of the duck *Tadorna radjah*, chat *Epthianura crocea*, owl *Tyto longimembris*, kingfisher *Halcyon chloris*, rats *Xeromys myoides* and *Mesembriomys macrurus*, turtle *Carettochelys insculpta*, hardyhead *Craterocephalus marianae*, fish *Melanotaenia exquisita*, grunter *Pingalla midgleyi* and frog *Megistolotis lignarius*.

**Hydrological/physical notes:** Kakadu Stage two falls in the Torresian biogeographic system. The Park encloses extensive lowlands west of the Arnhem Land plateau, which includes most of the catchment of the West Alligator and Wildman rivers, their floodplains and most of the floodplains of the South Alligator River and Magela Creek. The Pine Creek geosyncline is the dominant regional structure. Up to 117 260 ha of floodplain may be inundated during the wet season. The climate is monsoonal with a hot wet season from November to March accounting for about 90 per cent of the annual rainfall. In May, when the floodplains begin to dry out, the water contracts into lagoons and billabongs.

**Human uses:** Most of the site is owned by the Director of National Parks and Wildlife and a small part by the Jabiluka Aboriginal Lands Trust. In 1991, an agreement was formalised between the Jabiluka Aboriginal Lands Trust and the Director of National Parks and Wildlife to lease Aboriginal lands to the Director for the purposes of a national park. The Aboriginal people of the region place high economic and religious values on the wetland and its catchment. An easily sustained level of hunting and gathering by Aboriginals living in and around the Park takes place in accordance with long-standing tradition. A principal land use of the wetlands is conservation of ecosystems. Environment Australia coordinates research in Kakadu. Research projects are funded and/or conducted by a variety of organisations. The Environmental Research Institute of the Supervising Scientist conducts research in the region focussing on prevention and amelioration of the environmental impacts of mining. Courses are offered to train tour operators in park interpretation. There is a visitor centre with information on wetlands within the Park. There are numerous bird hides, and many of the walking tracks are provided with interpretative signs. Over 200 000 tourists visit the Park annually. Mining of uranium takes place in the catchment but is subject to effective environmental damage controls. Commercial barramundi fishing takes place in the sea with probably insignificant impact on the rivers and estuaries.

**Conservation measures:** The declaration of Kakadu National Park (Stage two) closes many gaps in the protection of wetlands in the Alligator Rivers Region. Together, the two stages place nearly all the wetlands of this region under active conservation management. Stage two of Kakadu was designated as a National Park in 1984, and amalgamated with Stage one in 1985. Conservation and management are carried out as a single entity with Stage one. Management plans are implemented. Enforcement of comprehensive legislation is effective. Feral livestock, particularly buffalo *Bubalus bubalis*, are controlled and current densities are low. In order to prevent salt water intrusion into the floodplains some river levees breached by buffalo have been reconstituted. Extensive infestations of *Mimosa pigra* and *Salvinia molesta* have been reduced but not exterminated. Hunting is prohibited except by Aboriginal people and for feral animal control.

Controlled recreational fishing is permitted. Fire management is designed to replicate traditional Aboriginal practice. In 1998, a vulnerability assessment of Kakadu was performed to see how it would respond to climate change and sea level rise. Via a Memorandum of Understanding, Kakadu is linked in a program to wetlands in Papua New Guinea and Indonesia. Conservation activities arising from this cooperation include practical training for on-ground managers, exchange of expertise and a series of workshops in all three countries.

**Adverse factors:** Ecosystem modifications caused by *Mimosa pigra*, *Salvinia molesta* and feral livestock have been reduced, but continue to require continuous intervention. The possible effects of mining the known deposits of uranium, gold, tin and copper, if permitted, remain controversial. Mineral exploration at the South Alligator River catchment has been suspended.

**Site management:** Kakadu National Park Board of Management, Kakadu National Park, PO Box 71, Jabiru NT 0886, Australia in conjunction with the Director, Australian National Parks, PO Box 787, Canberra, ACT 2601.

(A directory of important wetlands in Australia, second edition. ANCA 1996)

## Appendix G.

### Management principle schedules in the EPBC Regulations relevant to Kakadu National Park

EPBC Regulation schedules and management principles	Sections of Management Plan that address principles
<p><b>Australian IUCN reserve management principles (Schedule 8)</b></p> <p><i>Part 1 General administrative principles</i></p> <p><b>1 Community participation</b>            Management arrangements should, to the extent practicable, provide for broad and meaningful participation by the community, public organisations and private interests in designing and carrying out the functions of the reserve or zone.</p> <p><b>2 Effective and adaptive management</b>            Management arrangements should be effective and appropriate to the biodiversity objectives and the socio-economic context of the reserve or zone. They should be adaptive in character to ensure a capacity to respond to uncertainty and change.</p> <p><b>3 Precautionary principle</b>            A lack of full scientific certainty should not be used as a reason for postponing measures to prevent degradation of the natural and cultural heritage of a reserve or zone where there is a threat of serious or irreversible damage.</p> <p><b>4 Minimum impact</b>            The integrity of a reserve or zone is best conserved by protecting it from disturbance and threatening processes. Potential adverse impacts on the natural, cultural and social environment and surrounding communities should be minimised as far as practicable.</p> <p><b>5 Ecologically sustainable use</b>            If resource use is consistent with the management principles that apply to a reserve or zone, it should (if it is carried out) be based on the principle (the principle of ecologically sustainable use) that:</p> <p>(a) natural resources should only be used within their capacity to sustain natural processes while maintaining the life-support systems of nature; and</p> <p>(b) the benefit of the use to the present generation should not diminish the potential of the reserve or zone to meet the needs and aspirations of future generations.</p>	<p>4.1; 4.2; 7.2</p> <p>4.2; 5.6; 5.7; 5.8; 5.11; 8.3; 8.6; 8.8</p> <p>5.7; 5.8; 8.3</p> <p>5.6; 5.7; 5.8; 5.12; 6.1; 8.2</p> <p>4.3; 5.10; 8.3</p>

EPBC Regulation schedules and management principles	Sections of Management Plan that address principles
<p><b>6 Transparency of decision-making</b></p> <p>The framework and processes for decision-making for management of the reserve or zone should be transparent. The reasons for making decisions should be publicly available, except to the extent that information, including information that is culturally sensitive or commercial-in-confidence, needs to be treated as confidential.</p>	4.1; 6.1
<p><b>7 Joint management</b></p> <p>If the reserve or zone is wholly or partly owned by Aboriginal people continuing traditional use of the reserve or zone by resident indigenous people, including the protection and maintenance of cultural heritage, should be recognised.</p>	4.3; 4.4; 5.1; 5.2; 5.3; 5.8
<p><b>Part 2 Principles for IUCN category national park</b></p> <p>(Note : This category corresponds to the IUCN protected area management category II.)</p> <p>(1) The reserve or zone should be protected and managed to preserve its natural condition according to the following principles.</p> <p>(2) Natural and scenic areas of national and international significance should be protected for spiritual, scientific, educational, recreational or tourist purposes.</p> <p>(3) Representative examples of physiographic regions, biotic communities, genetic resources, and native species should be perpetuated in as natural a state as possible to provide ecological stability and diversity.</p> <p>(4) Visitor use should be managed for inspirational, educational, cultural and recreational purposes at a level that will maintain the reserve or zone in a natural or near natural state.</p> <p>(5) Management should seek to ensure that exploitation or occupation inconsistent with these principles does not occur.</p> <p>(6) Respect should be maintained for the ecological, geomorphologic, sacred and aesthetic attributes for which the reserve or zone was assigned to this category.</p> <p>(7) The needs of indigenous people should be taken into account, including subsistence resource use, to the extent that they do not conflict with these principles.</p> <p>(8) The aspirations of traditional owners of land within the reserve or zone, their continuing land management practices, the protection and maintenance of cultural heritage and the benefit the traditional owners derive from enterprises established in the reserve or zone consistent with these principles should be recognised and taken into account.</p>	<p>5.6; 6.1; 8.2; 8.3; 8.6</p> <p>5.6; 5.7; 5.8; 5.11; 5.12; 8.6</p> <p>Section 5</p> <p>Section 5; 8.3; 8.6</p> <p>5.6; 5.7; 5.8; 5.11; 5.12; 6.1; 8.6</p> <p>Section 4; 5.8; 5.10</p> <p>Section 4; 5.1; 5.2; 5.3; 5.10; 6.1</p>

EPBC Regulation schedules and management principles	Sections of Management Plan that address principles
<p><b>Australian World Heritage management principles (Schedule 5)</b></p> <p><b>1 General principles</b></p> <p>(1.01) The primary purpose of management of natural heritage and cultural heritage of a declared World Heritage property must be, in accordance with Australia’s obligations under the World Heritage Convention, to identify, protect, conserve, present, transmit to future generations and, if appropriate, rehabilitate the World Heritage values of the property.</p> <p>(1.02) The management should provide for public consultation on decisions and actions that may have a significant impact on the property.</p> <p>(1.03) The management should make special provision, if appropriate, for the involvement in managing the property of people who:</p> <ul style="list-style-type: none"> <li>(a) have a particular interest in the property; and</li> <li>(b) may be affected by the management of the property.</li> </ul> <p>(1.04) The management should provide for continuing community and technical input in managing the property</p> <p><b>2 Management planning</b></p> <p>(2.01) At least 1 management plan should be prepared for each declared World Heritage property.</p> <p>(2.02) A management plan for a declared World Heritage property should:</p> <ul style="list-style-type: none"> <li>(a) state the World Heritage values of the property for which it is prepared; and</li> <li>(b) include adequate processes for public consultation on proposed elements of the plan; and</li> <li>(c) state what must be done to ensure that the World Heritage values of the property are identified, conserved, protected, presented, transmitted to future generations and, if appropriate, rehabilitated; and</li> <li>(d) state mechanisms to deal with the impacts of actions that individually or cumulatively degrade, or threaten to degrade, the World Heritage values of the property; and</li> <li>(e) provide that management actions for values, that are not World Heritage values, are consistent with the management of the World Heritage values of the property; and</li> <li>(f) promote the integration of Commonwealth, state or territory and local government responsibilities for the property; and</li> </ul>	<p>Section 5 4.1</p> <p>Section 4, 7.2</p> <p>4.1, 7.2, 8.6</p> <p>Section 1</p>

EPBC Regulation schedules and management principles	Sections of Management Plan that address principles
<p>(g) provide for continuing monitoring and reporting on the state of the World Heritage values of the property; and</p> <p>(h) be reviewed at intervals of not more than 7 years.</p>	
<p><b>3 Environmental impact assessment and approval</b></p> <p>(3.01) This principle applies to the assessment of an action that is likely to have a significant impact on the World Heritage values of a property (whether the action is to occur inside the property or not).</p> <p>(3.02) Before the action is taken, the likely impact of the action on the World Heritage values of the property should be assessed under a statutory environmental impact assessment and approval process.</p> <p>(3.03) The assessment process should:</p> <ul style="list-style-type: none"> <li>(a) identify the World Heritage values of the property that are likely to be affected by the action; and</li> <li>(b) examine how the World Heritage values of the property might be affected; and</li> <li>(c) provide for adequate opportunity for public consultation.</li> </ul> <p>(3.04) An action should not be approved if it would be inconsistent with the protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.</p> <p>(3.05) Approval of the action should be subject to conditions that are necessary to ensure protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.</p> <p>(3.06) The action should be monitored by the authority responsible for giving the approval (or another appropriate authority) and, if necessary, enforcement action should be taken to ensure compliance with the conditions of the approval.</p>	<p>Section 8.3</p>

EPBC Regulation schedules and management principles	Sections of Management Plan that address principles
<p><b>Commonwealth Heritage management principles (Schedule 7)</b></p> <p>(1) The objective in managing Commonwealth Heritage places is to identify, protect, conserve, present and transmit, to all generations, their Commonwealth Heritage values.</p> <p>(2) The management of Commonwealth Heritage places should use the best available knowledge, skills and standards for those places, and include ongoing technical and community input to decisions and actions that may have a significant impact on their Commonwealth Heritage values.</p> <p>(3) The management of Commonwealth Heritage places should respect all heritage values of the place and seek to integrate, where appropriate, any Commonwealth, state, territory and local government responsibilities for those places.</p> <p>(4) The management of Commonwealth Heritage places should ensure that their use and presentation is consistent with the conservation of their Commonwealth Heritage values.</p> <p>(5) The management of Commonwealth Heritage places should make timely and appropriate provision for community involvement, especially by people who:</p> <ul style="list-style-type: none"> <li>(a) have a particular interest in, or associations with, the place; and</li> <li>(b) may be affected by the management of the place.</li> </ul> <p>(6) Indigenous people are the primary source of information on the value of their heritage and that the active participation of indigenous people in identification, assessment and management is integral to the effective protection of indigenous heritage values.</p> <p>(7) The management of Commonwealth Heritage places should provide for regular monitoring, review and reporting on the conservation of Commonwealth Heritage values.</p>	<p>4.1, Section 5, 8.6</p> <p>7.2, 8.6</p> <p>Section 5, 7.2</p> <p>6.11, 6.12</p> <p>4.1, 7.2</p> <p>Section 4</p> <p>8.6</p>

EPBC Regulation schedules and management principles	Sections of Management Plan that address principles
<p><b>Managing wetlands of international importance (Schedule 6)</b></p> <p>(1) The primary purpose of management of a declared Ramsar wetland must be, in accordance with the Ramsar Convention:</p> <p>(a) to describe and maintain the ecological character of the wetland; and</p> <p>(b) to formulate and implement planning that promotes:</p> <ul style="list-style-type: none"> <li>• conservation of the wetland; and</li> <li>• wise and sustainable use of the wetland for the benefit of humanity in a way that is compatible with maintenance of the natural properties of the ecosystem.</li> </ul> <p>(2) Wetland management should provide for public consultation on decisions and actions that may have a significant impact on the wetland.</p> <p>(3) Wetland management should make special provision, if appropriate, for the involvement of people who:</p> <p>(a) have a particular interest in the wetland; and</p> <p>(b) may be affected by the management of the wetland.</p> <p>(4) Wetland management should provide for continuing community and technical input.</p>	<p>Section 5</p> <p>4.1, 7.2, 8.3</p> <p>Section 4, 7.2, 8.6</p> <p>4.1, 7.2, 8.6</p>



EPBC Regulation schedules and management principles	Sections of Management Plan that address principles
<b>National Heritage management principles (Schedule 5b)</b>	
(1) The objective in managing National Heritage places is to identify, protect, conserve, present and transmit, to all generations, their National Heritage values	4.1, Section 5, 8.6
(2) The management of National Heritage places should use the best available knowledge, skills and standards for those places, and include ongoing technical and community input to decisions and actions that may have a significant impact on their National Heritage values	7.2, 8.6
(3) The management of National Heritage places should respect all heritage values of the place and seek to integrate, where appropriate, any Commonwealth, state, territory and local government responsibilities for those places.	Section 5, 7.2
(4) The management of National Heritage places should ensure that their use and presentation is consistent with the conservation of their National Heritage values.	6.11, 6.12
(5) The management of National Heritage places should make timely and appropriate provision for community involvement, especially by people who: <ul style="list-style-type: none"> <li>(a) have an interest in, or association with, the place; and</li> <li>(b) may be affected by the management of the place.</li> </ul>	4.1, 7.2
(6) Indigenous people are the primary source of information on the value of their heritage and the active participation of indigenous people in identification, assessment and management is integral to the effective protection of indigenous heritage values.	Section 4
(7) The management of National Heritage places should provide for regular monitoring, review and reporting on the conservation of National Heritage values.	8.6

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## **Photography and artwork credits:**

### **Front Cover**

Photo: Ian Oswald-Jacobs

Artwork montage: Daniel Moody, Hannah Davidson, Jordie Jessie Carroll, Gail Rotumah, Kodi Nadji

### **Back Cover**

#### **Photos**

Comb-crested Jacana: Michael Nelson

Magpie Goose: Greg Miles

Orchid: Michael Nelson

Termite mound: Michael Nelson

Darter: Michael Nelson

Lotus flower: Michael Nelson

Fire management: Michael Nelson

Tourists at Ubirr art site: Michael Nelson

Paperbark trees: Michael Nelson

Tourists at Ubirr lookout: Peter Wellings

West Alligator Head main beach: Greg Miles

4WD at Gunlom Falls: Michael Nelson

#### **Artwork**

Guided walk: Emily Scheibe

Ranger at rock art site: Kristina Williams

Fire management: Rhiannon Compton

Ranger in boat: Justin Giumelli

Pandanus and tree: William Suitor

### **Chapter Pages**

Photos: Ian Oswald-Jacobs

#### **Artwork**

Lotus flowers and birdlife (page 1): Kodi Nadji

Water lily leaves on wetland (page 15): Gail Rotumah

Crocodile and landscape (page 17): Curtis Yarrbar

Park use – featuring Frilled lizard (page 31): Christine Marie Alangate

Designed by Design Direction

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