

**WERRIKIMBE NATIONAL PARK**  
**PLAN OF MANAGEMENT**

**NSW National Parks and Wildlife Service**

**Part of the Department of Environment and Conservation (NSW)**

July 2005

**This plan of management was adopted by the Minister for the Environment on 26 July 2005.**

**Acknowledgments:** This plan of management was prepared by staff of the NSW National Parks and Wildlife Service's Northern Tablelands and Mid North Coast Regional Offices and the Northern Directorate Planning Section.

Input provided by the two Regional Advisory Committees that encompass this park is appreciated.

Cover photograph of Antarctic beech (*Nothofagus moorei*) forest by John Hunter, NPWS.

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## **FOREWORD**

Werrikimbe National Park is located 350 km north of Sydney. The Oxley Highway between Walcha and Port Macquarie passes 25 km to the south of the park and is a major route between the tablelands and the coast.

Werrikimbe National Park was initially dedicated a national park in 1975 and has been added to as a result of the Regional Forests Agreements. The park currently encompasses an area of 33,292 hectares. In 1986 the park (excluding subsequent additions) was included as part of the Central Eastern Rainforest Reserves (Australia) World Heritage Area in recognition of its outstanding natural values of international significance.

Werrikimbe National Park is part of a broad, almost continuous, belt of reserved forest along the Great Eastern Escarpment, virtually extending from Washpool National Park in the north to the Manning Valley in the south.

The range in elevation, rainfall and climate has provided the park with a rich biodiversity. The park contains a diversity of rainforest communities along gradients of moisture, exposure and soil depth, and protects a substantial number of threatened fauna species and rare or threatened plant species. The rugged core of the park protects one of the largest declared wilderness areas in north-eastern NSW.

A draft plan of management for Werrikimbe National Park was placed on public exhibition for three months from 23<sup>rd</sup> August until 2<sup>nd</sup> December 2002. The exhibition of the plan of management attracted 13 submissions which raised 13 issues. All submissions received were carefully considered before adopting this plan of management.

This plan of management briefly outlines the significance of Werrikimbe National Park and establishes a set of management objectives to conserve both the natural and cultural values of the park. Strategies and management priorities required to meet these objectives, and to meet the requirements of the World Heritage Convention, are identified.

This plan of management establishes the scheme of operations for Werrikimbe National Park. In accordance with section 75 of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.

**BOB DEBUS**

**MINISTER FOR THE ENVIRONMENT**

# CONTENTS

Page

<b>1. INTRODUCTION .....</b>	<b>1</b>
<b>2. MANAGEMENT CONTEXT .....</b>	<b>2</b>
2.1. WORLD HERITAGE .....	2
2.2. WILDERNESS .....	2
2.3. NATIONAL PARKS IN NEW SOUTH WALES .....	3
2.4. WERRIKIMBE NATIONAL PARK.....	5
2.4.1 <i>Location, gazettal and regional setting</i> .....	5
2.4.2 <i>Regional Forest Agreements</i> .....	6
2.5. LANDSCAPE CONTEXT.....	7
2.6. NATURAL AND CULTURAL HERITAGE VALUES .....	6
2.6.1 <i>Landform, geology and soil</i> .....	6
2.6.2 <i>Native flora</i> .....	7
2.6.3 <i>Native fauna</i> .....	9
2.6.4 <i>Cultural sites and places</i> .....	9
<b>3. OBJECTIVES OF MANAGEMENT .....</b>	<b>11</b>
3.1. WORLD HERITAGE MANAGEMENT OBJECTIVES .....	11
3.2. GENERAL OBJECTIVES FOR NATIONAL PARKS .....	11
3.3. SPECIFIC OBJECTIVES FOR WERRIKIMBE NATIONAL PARK.....	11
<b>4. POLICIES AND FRAMEWORK FOR MANAGEMENT .....</b>	<b>13</b>
4.1. NATURAL HERITAGE.....	13
4.1.1 <i>Landform, geology and soil</i> .....	13
4.1.2 <i>Catchment protection</i> .....	13
4.1.3 <i>Native flora</i> .....	14
4.1.4 <i>Native fauna</i> .....	15
4.1.5 <i>Pathogens</i> .....	16
4.1.6 <i>Introduced species</i> .....	16
4.1.7 <i>Fire management</i> .....	19
4.1.8 <i>Wilderness</i> .....	22
4.2. CULTURAL HERITAGE .....	22
4.2.1 <i>Aboriginal sites and places</i> .....	22
4.2.2 <i>Historic places</i> .....	23
4.3. PROMOTION AND USE OF THE PARK .....	25
4.3.1 <i>Promotion of the park</i> .....	25
4.3.2 <i>Recreation opportunities</i> .....	27
4.3.3 <i>Research and education</i> .....	31
4.3.4 <i>Management operations</i> .....	33
<b>5. PLAN IMPLEMENTATION.....</b>	<b>34</b>
Table 1: <i>Plan implementation</i> .....	35
<b>PLAN REFERENCE .....</b>	<b>35</b>
<b>6. BIBLIOGRAPHY .....</b>	<b>40</b>
<b>APPENDIX 1. RARE OR THREATENED PLANTS KNOWN TO OCCUR IN WERRIKIMBE NP ...</b>	<b>42</b>
<b>APPENDIX 2. THREATENED FAUNA KNOWN TO OCCUR IN WERRIKIMBE NP.....</b>	<b>44</b>
<b>APPENDIX 3. AUSTRALIAN WORLD HERITAGE MANAGEMENT PRINCIPLES.....</b>	<b>45</b>
<b>MAPS</b>	
Map 1 <i>Werrikimbe National Park – Location and Regional Setting</i> .....	4
Map 2 <i>Werrikimbe National Park</i> .....	centre pages

## 1. INTRODUCTION

The *National Parks and Wildlife Act 1974 (NPW Act)* requires that a plan of management be prepared for each national park. A plan of management is a legal document that outlines how a national park will be managed in the years ahead.

The procedure for the preparation of a plan of management is specified in the NPW Act and involves five stages, namely:

- The Director-General gives notice that a plan of management has been prepared.
- The plan is placed on public exhibition, allowing anyone to provide a written submission to the plan.
- The plan and copies of all submissions are referred to the National Parks and Wildlife Advisory Council for consideration.
- The Director-General submits the plan, together with the recommendations of the Advisory Council, to the Minister.
- The Minister may adopt the plan, with or without alteration, after considering the recommendations of the Advisory Council or may refer the plan back to the Director-General and Council for further consideration.

Once a plan has been adopted by the Minister, no operations may be undertaken within the national park except in accordance with the plan.

The planning process leading to the development of this plan has involved the collection and use of a large amount of information, which for reasons of document size, has not been included in the plan. For additional information or inquires on any aspect of the plan, contact:

- NPWS Walcha Area Office at 188w North Street, Walcha, 2354, or by phone at (02) 6777 1400 for the western section of the park; or
- NPWS Mid North Coast Regional Office at 152 Horton Street, Port Macquarie, or by phone at (02) 6584 2203 for the eastern section of the park.

## 2. MANAGEMENT CONTEXT

### 2.1. WORLD HERITAGE

Werrikimbe National Park is part of the Central Eastern Rainforest Reserves of Australia (CERRA) World Heritage area. It is one of the largest protected areas in CERRA. The Central Eastern Rainforest Reserves represent a natural heritage of international significance as ancient and isolated refugia of a great variety of plant and animal species.

The International Convention for the Protection of the World Cultural and Natural Heritage (the World Heritage Convention) was ratified by Australia in 1974. The Convention provides a framework for international cooperation and the collective protection of the cultural and natural heritage of outstanding universal value.

The Convention provides for the listing of properties on the basis of cultural or natural heritage of outstanding universal value. In Australia, there are currently 13 World Heritage properties. Werrikimbe National Park is part of the CERRA which is a serial property comprising over 40 individual protected areas between Barrington Tops (north-west of Newcastle, NSW) and the Mistake Mountains (east of Toowoomba, Qld). Major national parks inscribed as part of this listing include Barrington Tops, Oxley Wild Rivers, New England, Dorrigo, Washpool, Gibraltar Range, Border Ranges, Mt Warning, Lamington and Springbrook.

CERRA was inscribed on the World Heritage List in 1986, and extended in 1994, because it satisfies three of the four criteria for natural values of outstanding universal significance. It represents:

- a record of the Earth's evolutionary history, geological processes and the resulting landscape features (*criterion I*);
- outstanding examples of ongoing ecological and biological process (*criterion II*); and
- significant areas for the conservation of biodiversity, including threatened plants and animals (*criterion IV*).

In order to comply with obligations under the World Heritage Convention, all ongoing management must be undertaken, and any future development in the park assessed, in accordance with the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* and the NSW *Environmental Planning and Assessment Act 1979*.

### 2.2. WILDERNESS

Wilderness is a large natural area of land that, together with its native plant and animal communities, is essentially unchanged by human activity. A proposal for Werrikimbe wilderness was received in 1991 and in 1992. The area was identified as meeting the criteria for wilderness specified in section 6(1) of the *Wilderness Act, 1987*. The *Wilderness Act* (Section 9c) states that wilderness is to be managed "to permit opportunities for solitude and self-reliant recreation".

Werrikimbe wilderness was initially declared in 1996 under section 8 of the *Wilderness Act* and additions were declared subsequently. Werrikimbe wilderness, contained wholly within Werrikimbe National Park, is currently 27,152 hectares in area, or 82% of the Park. Werrikimbe wilderness has the benefit of being in close

proximity to wilderness areas outside the park, namely Willi Willi, Kunderang and Macleay Gorges wilderness areas.

The Werrikimbe Wilderness Area comprises the rugged gorges of the Hastings and Forbes Rivers; the pristine rainforest catchment of Cobcroft Creek; the Antarctic beech rainforest of the Plateau Beech area, and the Dingo Creek catchment which supports a mosaic of woodland, grass tree scrub, heath and sedge swamps.

In 1999 a wilderness proposal was received by NPWS for several areas in north east NSW including an addition to Werrikimbe wilderness adjacent to the park. This area will undergo wilderness assessment to determine whether wilderness criteria are met and if the area is identified it may be eventually gazetted as part of Werrikimbe National Park and subsequently declared as wilderness. Therefore, while the proposed areas are under consideration, the areas will be managed so as to minimise any adverse effects on wilderness values.

### **2.3. NATIONAL PARKS IN NEW SOUTH WALES**

The National Park concept was introduced into Australia through the establishment of Royal National Park in 1879.

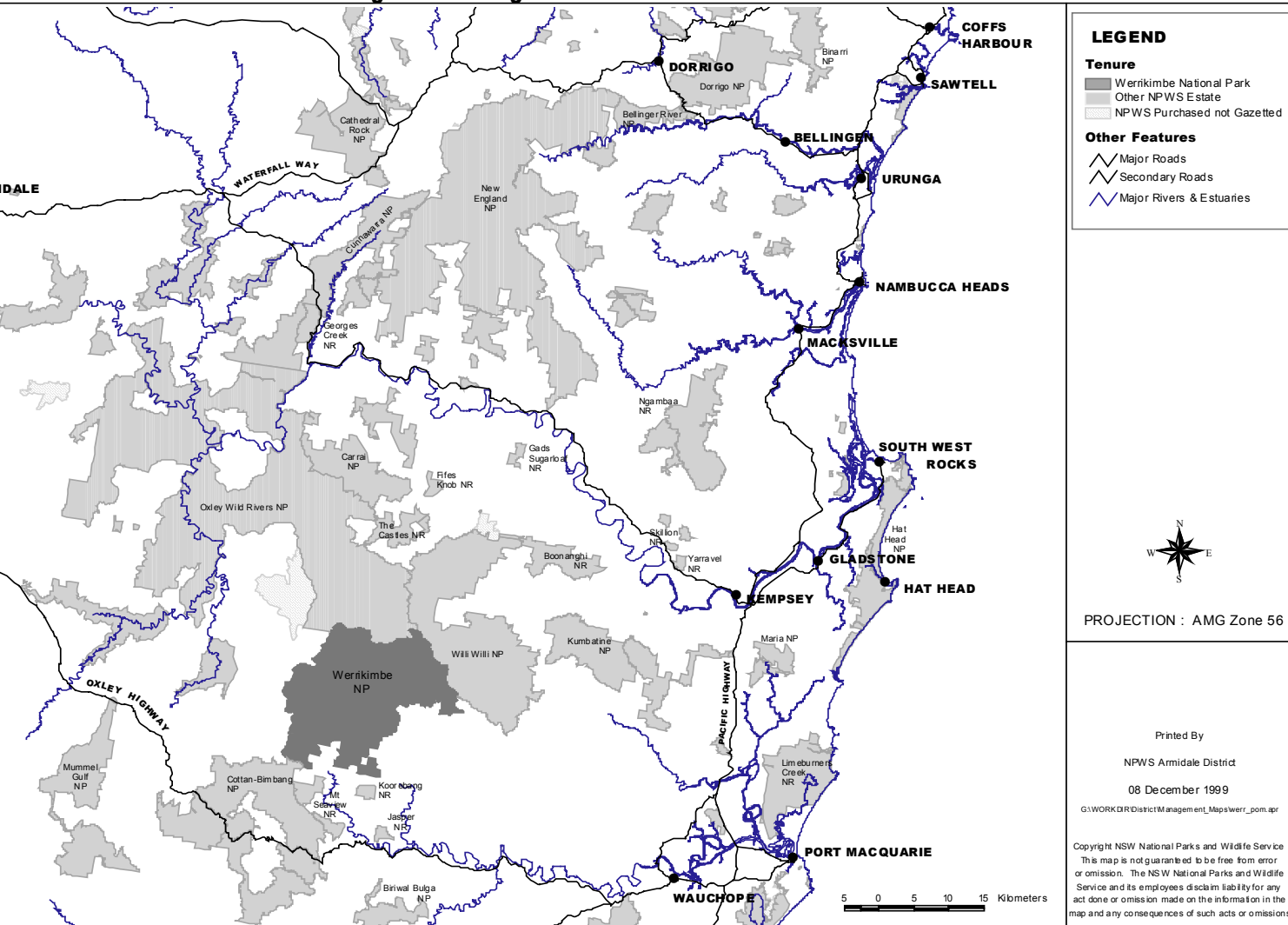
For the purpose of preparing plans of management, the NSW NPWS has adopted the International Union for the Conservation of Nature and Natural Resources (IUCN) definition of a national park:

*“A natural area of land and/or sea, designated to:*

- a).protect the ecological integrity of one or more ecosystems for present and future generations;*
- b).exclude exploitation or occupation inimical to the purposes of designation of the area; and*
- c).provide a foundation for spiritual, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.” (IUCN, 1994)*

National parks are part of the regional pattern of land use. The management of a national park aims to minimise disturbance to natural and cultural resources, while other land uses, such as agriculture, forestry and mining, are distinguished by an acceptance or encouragement of environmental modification.

**Werrikimbe National Park: Location and Regional Setting**





## **2.4. WERRIKIMBE NATIONAL PARK**

### **2.4.1 Location, gazettal and regional setting**

Werrikimbe National Park (referred to as the "park" in this plan) lies within the Mid North Coast and Northern Tablelands Regions of the Northern Directorate of the NSW National Parks and Wildlife Service (NPWS). Management of the park is generally undertaken by staff of each Region within the confines of the relevant Region.

Werrikimbe National Park is located 350 km north of Sydney, within the Hastings and Walcha Local Government Areas. Port Macquarie, a major visitor destination in the rapidly growing Mid-North Coast area, is 70 km by road to the south-east. Walcha is 80 km by road west of the park. To the north-west and west respectively are the cities of Armidale (144 km by road) and Tamworth (174 km by road), both of which are important inland visitor centres. The Oxley Highway between Walcha and Port Macquarie passes 25 km to the south of the park and is a major route between the tablelands and the coast (see map 1).

Werrikimbe National Park was originally dedicated in 1975. It has subsequently been added to, including additions from adjoining State Forests as part of the 1982 Rainforests decision and the Regional Forest Agreement (RFA) process (refer below). The park currently encompasses an area of 33,292 hectares. The current park boundary is shown on map 2. The park extends from the edge of the Northern Tablelands into the deeply incised valleys of the Forbes and Hastings Rivers where they descend to the coastal plain.

Included within the park are the headwaters of two major river systems, the Forbes and the Hastings. These rivers have been identified as having wild and scenic river values.

Werrikimbe National Park is now part of an almost continuous belt of land protected under the NPW Act along the eastern escarpment and plateau, virtually extending from Washpool National Park in the north to the Manning Valley in the south. A number of these parks and reserves are shown on Map 1.

### **2.4.2 Regional Forest Agreements**

Regional Forest Agreement (RFAs) are one of the principal means of implementing the National Forest Policy Statement of 1992. Under this Statement, Commonwealth, State and Territory governments agreed to work towards a shared vision for Australia's forests. This aimed to maintain native forest estate, manage it in an ecologically sustainable manner and develop sustainable forest-based industries. The Statement provided for joint comprehensive assessments of the natural, cultural, economic and social values of forests. These assessments formed the basis for negotiation of RFAs that provide, amongst other things, for Ecologically Sustainable Forest Management.

Werrikimbe National Park is included in the North East RFA. The process leading up to the RFA provided for major additions to the reserve system, including additions to the park.

## **2.5 LANDSCAPE CONTEXT**

Natural and cultural heritage and on-going use are strongly inter-related and together form the landscape of an area. Much of the Australian environment has been influenced by past Aboriginal and non-Aboriginal land use practices and the activities of modern day Australians continue to influence bushland through recreational use, cultural practices, the presence of introduced plants and animals and in some cases air and water pollution.

The geology, landform, climate and plant and animal communities of the area, plus its location, have determined how it has been used by humans. The park was occupied by Aboriginal people before European settlers moved in for timber harvesting and grazing. Grazing was concentrated to the high plateau areas due to the steep terrain and dense forests in the valleys.

Both Aboriginal and non-Aboriginal people place cultural values on natural areas, including aesthetic, social, spiritual, recreational and other values. Cultural values may be attached to the landscape as a whole or to individual components, for example to plant and animal species used by Aboriginal people. This plan of management aims to conserve both natural and cultural values. For reasons of clarity and document usefulness natural and cultural heritage, non-human threats and on-going use are dealt with individually, but their inter-relationships are recognised.

## **2.6. NATURAL AND CULTURAL HERITAGE VALUES**

### **2.6.1. Landform, geology and soil**

The landforms, geology and soils are major determinants for the pattern and distribution of flora, fauna and human use.

The landforms of the park have developed from ongoing headward erosion of deep V-shaped valleys cutting back along streams into the undulating Northern Tableland. This has produced a diverse landscape that includes meandering streams and rolling hills in tableland areas, and rugged ridges, cliffs, steep slopes, deep gorges, waterfalls and canyons along the escarpment.

The park lies within the New England Fold Belt of Eastern Australia. The oldest rocks in the park are Early Cambrian (600 million years ago) oceanic crust that formed at a sea floor spreading centre. This crust was subsequently highly deformed and now forms the small occurrences of serpentinite in the south-east of the park. The north-west and south-west of the park consist mainly of complexly deformed metasediments and metavolcanics. These rocks were deposited in an oceanic environment during the Silurian (440 million years ago) to Devonian (440 million years ago). They became incorporated into the New England Fold Belt by a process called accretion, where these rocks were scraped off an oceanic plate moving below another and were added to the east of Australia on deposition. These accreted rocks are intruded by an Early Triassic (225 million years ago) igneous rock (granitoid), part of the New England Batholith, in the south-west of the park. Triassic volcanics overly all these rocks in the eastern half of the park (MacRae, pers. comm. 2002).

A major event in the story of the landscape of what is now Werrikimbe National Park was the uplift of parts of eastern Australia. This gave rise to renewed erosion activity that produced the prominent Great Escarpment along virtually the entire

eastern coast of Australia. The result of this uplift was an undulating plateau sloping gently to the west and more steeply to the east. On the steeper eastern slopes, large streams carved deep gorge-like valleys that eventually joined up into an almost continuous escarpment. As erosion of the eastern edge of the Northern Tableland continued, this escarpment moved slowly westwards.

The differences in geology have contributed to considerable diversity in landform. As a result, both the Forbes and Hastings River catchments have very different characters in terms of their natural features.

Both rivers drop a considerable altitude over comparable distances, but the Forbes has an even gradient with no major waterfalls. The Cockerawombeeba Creek area has similar characteristics to the Forbes River gorge, falling steeply away from Camerons Bluff and Mount Boss to the Forbes River valley floor. The Hastings, on the other hand, descends in a series of steps in a deeply incised gorge with two major waterfalls (the Upper and Lower Falls). Significant waterfalls also occur on tributaries of the Hastings, notably on Cobcroft Creek.

### 2.6.2. Native flora

Werrikimbe National Park supports a diverse mosaic of plant communities in response to marked variations in altitude, climate, landform, soil and fire history. These include rainforest, sclerophyll forests, woodland, heath, grass-tree scrub, sedge swamps and meadow swamps. Extensive flora surveys have been undertaken throughout the park, revealing a diverse plant life that is a resource of considerable nature conservation significance. There are 24 Rare or Threatened Australian Plant (ROTAP) species, of which 2 are also listed as Endangered and 3 as Vulnerable on the *Threatened Species Conservation Act 1995 (TSC Act)* (refer to appendix 1).

High rainfall and moderately fertile soils have contributed to the extensive development of rainforest in the park, ranging from subtropical rainforest at low elevations to warm temperate and cool temperate rainforest at higher elevations.

Rainforests represent a natural heritage of international significance as ancient and isolated reservoirs of a great variety of plant and animal species. Werrikimbe National Park is renowned for its rainforest values, which are central to its inclusion on the World Heritage List as part of the CERRA property. The park protects substantial remnant old growth rainforest pockets in the upper Hastings catchment.

The vegetation of the park is described in the following broad groupings:

- **Subtropical rainforest** is found only in a few sheltered locations mainly along streams, and often with some characteristic species of either warm temperate or dry rainforest. It is characterised by luxuriant growth, a wide variety of tall, closely spaced trees, abundant epiphytic ferns and orchids, large vines and special growth forms such as strangling figs, buttresses and large simple or compound leaves. The major tree species are black booyong (*Heritiera actinophylla*), socketwood (*Daphnandra micrantha*), brown beech (*Pennantia cunninghamii*) and brush bloodwood (*Baloghia inophylla*).

- **Warm temperate rainforest** is found within the park at altitudes above 700 metres, especially in the Hastings and Forbes catchments around Mount Werrikimbe. These locations are too cool for subtropical rainforest, which explains the presence of the hardier warm temperate rainforest species. Major tree species are black booyong (*Argyrodendron actinophyllum*), coachwood (*Ceratopetalum apetalum*), sassafras (*Doryphora sassafras*) and yellow carabeen (*Sloanea woollsii*), with rosewood (*Dysoxylum fraserianum*), corkwood (*Caldcluvia paniculosa*), prickly ash (*Orites excelsa*), crabapple (*Schizomeria ovata*) and lilly pilly (*Acmena smithii*) also being common.
- **Cool temperate rainforest** is found in the cooler high rainfall areas of the park (near Plateau Beech day use and camping area), generally at elevations exceeding 1,000 metres, but occurring down to 700 metres. In contrast to the subtropical rainforest it supports relatively few tree species. Of particular importance is that the park is the only place where the cool temperate rainforest supports a warm temperate understorey. These rainforests are dominated by Antarctic beech (*Nothofagus moorei*) and although occurring further south and extending into Tasmania, are only found in five main areas in north-eastern New South Wales and south-eastern Queensland. These areas are of quite limited extent and are restricted to cool and moist habitat on the eastern highlands. Species of note contained within these forests include the rare mountain laurel (*Cryptocarya nova-anglica*), the rare *Acacia tessellata*, the most northerly populations of filmy king fern (*Leptopteris fraseri*), and the vine *Marsdenia longiloba* which is classified as endangered under the *TSC Act*.
- **Tall open forest** can be found in the lower reaches of both the Hastings and Forbes River catchments within the park. These rugged valleys at lower elevations receive less rainfall than the ridgetops and plateau which support rainforest. This type of forest consists of several associations of tall species, including Sydney blue gum (*Eucalyptus saligna*), tallowwood (*E. microcorys*), New England Blackbutt (*E. campanulata*), turpentine (*Syncarpia glomulifera*), diehard stringybark (*E. cameronii*), messmate stringybark (*E. obliqua*) and brush box (*Lophostemon confertus*).
- **Open forest** is well represented within the plateau communities of the park. This forest type consists of small to medium-sized, often stunted, cold adapted eucalypts, sometimes opening out into woodland, but mainly forest with a characteristic xeromorphic shrub layer. New England blackbutt, associated mostly with diehard stringybark, broad-leaved peppermint (*E. dives*) and red bloodwood (*Corymbia gummifera*) characterise these forests.
- **Sub-alpine woodland** of low eucalypts is also found on the plateau areas of the park. The dominant tree species here are snow gum (*E. pauciflora*) and broad-leaved peppermint. Usually found with a xeromorphic shrub layer, this woodland is also occasionally found with only a grassy understorey, as is the case at Mooraback.
- **Heath** communities have a very restricted distribution within the park. Much of the heath is on poor shallow rocky soils usually derived from granite, but a denser wet heath is occasionally found on damp peaty soils of swamp depressions. These communities stand out because of their species richness.

- Small and large patches of **sedge** and **meadow swamp** and **sphagnum bog** occur on the high plateau surface in the upper reaches of streams which are waterlogged for the greater part of the year. The swamps at Mooraback, the Racecourse and the headwaters of the Hastings, are the only known swamps of their type to have formed on sedimentary lithologies on the Northern Tablelands. All other swamps, like those at Dingo Creek, have formed on granites and basalts.

### **2.6.3. Native fauna**

The diversity of habitats within the park supports a rich native faunal assemblage. There have been extensive fauna surveys undertaken throughout the park since its inception. To date a total of 38 native mammal, 26 reptile, 15 amphibian and 150 bird species have been recorded within the park, of which 31 species are classified as threatened in the TSC Act (refer to Appendix 2). Systematic surveys conducted by the Australian Museum for over 10 years at both Mooraback and the Forbes River crossing have assisted the NPWS in increasing its knowledge of invertebrate fauna in the park.

### **2.6.4. Cultural sites and places**

Werrikimbe National Park is located in the traditional area of the Dungutti Aboriginal people. The park is in the Kempsey and Birpai Local Aboriginal Land Council areas, although Aboriginal peoples living in other land council areas may also have an interest in the management of the park.

The park contains evidence of past Aboriginal use, including several stone arrangements and surface deposits of stone artefacts. All known sites within the park are recorded in the NPWS Sites Register. Where sites are in close proximity to areas of visitation there is the potential for disturbance. These sites, therefore, require active management and regular monitoring to ensure their continued existence.

While much of Werrikimbe National Park has remained undeveloped, the park contains a number of relics such as fences, huts, stockyards, mines, foundations, roads, graves, log dumps, bridges and earth works. They are the physical evidence of a range of post settlement land uses, such as agriculture, mining and forestry, that took place over a period of about one hundred years leading up to the dedication of the park.

The most extensively used area prior to establishment of the national park was the Mooraback settlement which encompassed much of the cleared area from Mooraback day use and camping area across Bishops and Racecourse Swamps to Racecourse Trail. Mooraback, one of the first settlements on the Northern Tablelands, was settled by people moving inland from the Port Macquarie convict settlement. Transport was usually by packhorses. As roads developed, settlers progressed to bullock drays. Clearing of the forest by ringbarking was widespread. Up to 1,000 cattle were run on Mooraback, as well as a small number of sheep. Fruit trees and other exotic trees were also planted on the property in the 1960s. Some of these trees, such as old fruit trees, may have historic significance (Mitchell, 2003).

The stockyards at Mooraback were originally constructed in the early 1920s, with additions made in 1958 and 1968 using local stringybark for the posts and blue gums for the rails. Cattle were branded and marked in the yards before being sent to markets in Scone or Gloucester (Mitchell, 2003).

The hut at Mooraback was built from slab timbers after a fire destroyed the original homestead.

There have been several mining ventures in the Mooraback area (Messner, 2003). In 1948, during a cattle slump, manganese was mined and trucked to the Walcha railway station, from where it was sent to the steel works in Newcastle. A trench mine on the hill across Bishops Swamp was also used to mine manganese. George Cohen, an Aboriginal who worked on Mooraback, reputedly found tin of good quality in Dingo and Big Hill Creeks, but died before disclosing the whereabouts of the mineral.

Later, Bill 'King' Hayden and his brother logged the red cedar from the entire Mooraback area. They travelled to the area from Fitzroy on the Armidale-Kempsey Road down Kunderang Brook and up and over the Youdale's area (now the south-eastern section of Oxley Wild Rivers National Park). The cedar was brought back to Mooraback and removed from there by truck.

### 3. OBJECTIVES OF MANAGEMENT

#### 3.1. WORLD HERITAGE MANAGEMENT OBJECTIVES

Werrikimbe National Park will be managed in accordance with the World Heritage Convention. The primary obligations of the Convention (Article 4) are to ensure that World Heritage sites and their values are identified, protected, conserved, presented and, where necessary, rehabilitated so they can be transmitted to future generations. Australian World Heritage Management Principles (refer Appendix 3), as set out in regulations to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, have been developed from these obligations.

Strategies pertaining to each of the obligations are given in the Strategic Overview for CERRA. The management strategies for the park, with respect to conservation, rehabilitation and presentation, are detailed in section 4 of this plan and are consistent with requirements of the World Heritage Convention and strategies given in the CERRA Strategic Overview (CERRA 2000). The objectives of management in regards to identification and protection are given below.

#### 3.2. GENERAL OBJECTIVES FOR NATIONAL PARKS

The following general objectives relate to the management of National Parks in New South Wales:

- protection and preservation of scenic and natural features, including significant geological and geomorphological features;
- conservation of wildlife, including maintenance of biodiversity and populations of threatened species;
- maintenance of natural processes;
- preservation of catchment values;
- preservation of Aboriginal sites;
- conservation of non-Aboriginal historic features;
- provision of appropriate recreation opportunities; and
- encouragement of scientific and educational inquiry into environmental features and processes, cultural features and park use patterns.

#### 3.3. SPECIFIC OBJECTIVES FOR WERRIKIMBE NATIONAL PARK

In addition to the above World Heritage objectives and the general objectives, the following specific objectives of management will apply to Werrikimbe National Park:

- Manage the park as part of the system of protected lands along the eastern escarpment, with particular emphasis on maintenance of the ecological relationships between this park and adjacent reserves (refer to 4.1.1).
- Promote appropriate land use planning and management amongst neighbours and other land use authorities which will enable the highest practicable protection of the catchment, including the National Park, adjacent reserves and other native forest (refer to 4.1.2).
- Conserve rare, threatened and/or isolated plant species and communities, particularly the population of pygmy cypress pine (refer to 4.1.3).
- Rehabilitate and restore the cleared forest, woodland and meadow swamp communities in the Mooraback and Racecourse areas (refer to 4.1.3)

- Protect threatened and/or isolated animal species and communities, in particular the Rufous Scrub-bird and Hastings River Mouse (refer to 4.1.4).
- Determine the presence, if any, of *Phytophthora cinnamomi* within the park (refer to 4.1.5).
- Control and, where possible, eradicate introduced species from the park (refer to 4.1.6)
- Fire does not threaten park values (refer to 4.1.7).
- Wilderness values of the park are maintained, and where possible, enhanced (refer to 4.1.8).
- Identify and protect Aboriginal sites and places of significance in association with the local Aboriginal community (refer to 4.2.1).
- Historically important places, particularly relics in the Mooraback pastoral area, are protected (refer to 4.2.2).
- Promote greater public awareness of the park, with particular emphasis on preserving the World Heritage, national park, wilderness, wild and scenic river, Aboriginal and European cultural heritage, and flora and fauna values of the park (refer to 4.3.1).
- Promote within the community, particularly neighbours of the park, an understanding of the importance and purpose of management programs necessary for the protection of natural features, and the control of fire and pest species (refer to 4.3.1).
- Promote the use of the park for appropriate recreational uses (refer to 4.3.2).
- Promote the use of the park for appropriate environmental education and scientific research (refer to 4.3.3).



## 4. POLICIES AND FRAMEWORK FOR MANAGEMENT

This section contains the policies and framework for the management of Werrikimbe National Park together with the relevant background information. Policies, actions and relevant background information are summarised under the following headings:

Section 4.1. NATURAL HERITAGE;

Section 4.2. CULTURAL HERITAGE; and

Section 4.3. PROMOTION AND USE OF THE PARK.

The policies established will provide the framework for management consistent with anticipated available resources and community trends over the life of the plan.

The actions identified are those proposals to which priority will be given in the life of the plan. Other management actions consistent with the outlined policies and stated objectives, may be implemented during the life of this plan.

Where not specifically provided for in this plan of management, the management of Werrikimbe National Park will also be in accordance with the NPW Act and with general NPWS policies.

### 4.1. NATURAL HERITAGE

#### 4.1.1. Landform, geology and soil

Accelerated, or human induced, erosion generally occurs in sites of disturbance, such as along Racecourse and Spokes Trails. The majority of the park, however, shows little evidence of human disturbance. This is especially the case within Werrikimbe wilderness, which by definition (section 6(1)(a)) is "in a state that has not been substantially modified by humans and their work". All management activities, where relevant, will incorporate soil erosion mitigation practices.

#### Guidelines and actions

- \* Features of geological, geomorphic and pedological interest (such as the eastern escarpment, the waterfalls and gorges and skeletal soils of the steep hillslopes) will be protected from the adverse impacts of visitor use, management activities and past land use.
- \* Areas of accelerated erosion will be identified and mapped. Where necessary works will be undertaken to mitigate soil erosion in the park.
- \* Park management activities, such as the provision of access and recreation facilities, will be designed to minimise soil erosion.

#### 4.1.2. Catchment protection

Past land uses in what is now Werrikimbe National Park, involved disturbances such as clearing, road building, logging and the draining of meadow swamps (refer to section 4.1.3). In some cases these activities have led to an increase in water run-off, resulting in accelerated soil erosion and deterioration in water quality.

Now that many of the past land uses are gone, the park affords protection to the headwaters of a number of streams, thereby providing very high water quality to the park boundary.

The *Catchment Management Act 1989* and total catchment management (TCM) provide the umbrella framework to aim for, amongst other matters, cleaner water, less soil erosion, improved vegetation cover, the maintenance of ecological processes and a balanced and healthier environment. It also provides a focus to balance conservation needs and development pressures and encourages a more aware and involved community. An important means of achieving these aims is the formation and support of local catchment management committees, such as the Mid North Coast Catchment Management Board (CMB).

The entire lengths of the Forbes and Hastings Rivers within the park (see map 2) have been identified as “Wild and Scenic Rivers”, however, they have not been declared under the Act. Recent amendments to the NPW Act provide for the declaration of “Wild Rivers”.

### **Guidelines and actions**

- \* The high water quality of catchments within the park will be maintained and all practical steps taken to limit the entry of pollutants. TCM principles will be applied to protecting water quality and the hydrology of the park’s river systems.
- \* The NPWS will not permit any development or activity that compromises the wild and scenic values of the rivers in the park.
- \* The NPWS will continue to support the TCM concept and the relevant Catchment Management Board(s).
- \* Seek the declaration of the Forbes and Hastings Rivers within the park as Wild Rivers under the NPW Act.

### **4.1.3. Native flora**

Several large areas of woodland and open forest in the Mooraback area were cleared for grazing purposes prior to the park’s dedication. Drains were constructed to improve grazing on meadow swamps at Mooraback and the Racecourse and this has resulted in significant changes to the drainage pattern and accelerated erosion.

When under the former State forest tenure, some areas of the park were harvested for timber. Much of what is now the park was selectively logged for cedar and tallowwood, although there was clear felling of the forest in some sections of the new additions that were added to the park in January 2003. Significant areas of cool temperate rainforest in particular have been harvested in the eastern sections of the park over a period of some decades. The forests are growing back well in some areas and their value has not been significantly diminished.

The long-term conservation of many of the plant species and communities within the park depends on there being appropriate fire regimes (refer to section 4.1.7). Policies and actions relating to fire management are also contained in section 4.1.7. The pygmy cypress pine (*Callitris oblonga*) is a rare native cypress pine found in five scattered localities in NSW, including the park. The pygmy cypress pine has been identified as requiring special protective fire management. A specific conservation program will be developed by the NPWS for this species.

Under the provisions of the *TSC Act* a recovery plan must be prepared for all flora and fauna species, populations and ecological communities listed as endangered

or vulnerable on the *TSC Act* schedules. These recovery plans will identify specific actions for the recovery of the species. It is possible that specific actions for threatened species to be implemented within the park will be identified in the recovery plan.

### **Guidelines and actions**

- \* The diversity and distribution of plant life will be protected through the maintenance of natural processes, the mitigation of human impacts and the development of specific conservation programs where required.
- \* Any future rehabilitation of disturbed areas will be undertaken using plant species native to the local area so as to maintain the genetic integrity of the park.
- \* The extent of the pygmy cypress pine within the park will be mapped and monitored to assist with its preservation. Specific conservation programs will be developed to protect the pygmy cypress pine from the adverse effects of fire.
- \* Rehabilitation programs will be developed and implemented for:
  - the meadow swamp communities in the Mooraback and Racecourse areas;
  - the cleared woodland and open forest areas at Mooraback, and
  - Plateau Beech day use and camping area (southern cleared section).
- \* Monitoring of World Heritage values will be undertaken once measurable attributes are identified and protocols devised.

#### **4.1.4. Native fauna**

Amongst the range of animal species known in the park there are 31 species classified as threatened in the *TSC Act* (refer to Appendix 2). Based on current knowledge, two of these species warrant special management provisions. The known habitat of the endangered Hastings River mouse (*Pseudomys oralis*) is susceptible to disturbance by inappropriate fire regimes and feral pigs. The vulnerable Rufous scrub-bird (*Atrichornis rufescens*) is well represented within the park. It frequently inhabits the rainforest-eucalypt forest interface that is also susceptible to disturbance by fire (refer section 4.1.7).

The NPWS recognises pure-bred dingoes as a native species and the value of viable, high quality dingoes as a high order predator in enhancing ecological function, regulating other abundant species such as eastern grey kangaroos and displacing foxes. Werrikimbe National Park is considered to contain high quality dingo habitat and has been declared as “controlled land” for the purposes of the control of dingoes under the Rural Lands Protection Act 1998 (RLP Act), pest control order number 2, for the conservation of dingoes (a “Dingo Management Area”). Wild dogs emanating from the park must be controlled (refer to section 4.1.6 Introduced species - Introduced animals).

### **Guidelines and actions**

- \* The diversity and distribution of native fauna will be maintained by protecting natural processes, the mitigation of human impacts and the development of specific conservation programs.
- \* The habitats of rare or threatened species will be protected.
- \* Liaison with research institutions to promote scientific inquiry into the fauna of the park will be undertaken. Appropriate research conducted within the park will

be permitted to continue. All research will be required to provide information back to the NPWS to expand its knowledge of native fauna in the park.

#### 4.1.5 Pathogens

Following apparent dieback in some sections of the park, soil testing has yet to determine the presence of the parasitic soil pathogen cinnamon fungus (*Phytophthora cinnamomi*).

##### Guidelines and actions

- \* Research into the presence of *Phytophthora* in the park will be undertaken (refer to section 4.3.3).
- \* If *Phytophthora* is found to occur in the park a working group will be established to develop and implement procedures to contain the spread of *Phytophthora* in the park, as well as establish protocols for managing and using infected areas by Service staff and the public.
- \* Until the extent or absence of *Phytophthora* infestation in the park is determined there is an urgent need to:
  - (i) Establish protocols for vehicle movement, maintenance activities and trail construction in areas known to be infected, or potentially infected, with *Phytophthora*;
  - (ii) Determine the implications for fire and pest species management, especially for feral pigs; and
  - (iii) Continue to monitor the presence/extent of *Phytophthora*-induced dieback in the park.
- \* Vehicle movement, walker access, maintenance activities and any future trail construction will be restricted or prohibited in areas found to be infected with *Phytophthora*. Management protocols for plant and equipment will be implemented to minimise the potential spread of *Phytophthora*.
- \* Any vehicle trail, bridle trail or walking track found to be within, or in close proximity to, an area infected with *Phytophthora* will be closed and/or re-routed. Where necessary infected areas may be quarantined.

#### 4.1.6 Introduced species

Introduced, or pest, species are those species not native to the park. They have an impact on the natural environment through competition for resources, predation, disturbance to the natural environment, and transmission of disease. Pest species may also have an economic impact for the NPWS and for neighbours.

The NPWS Northern Tablelands and Mid-North Coast Regions Pest Management Strategies currently direct management of introduced species in the park.

##### Introduced plants

The *Noxious Weeds Act 1993* places an obligation upon public authorities to control declared noxious weeds on land that it occupies to the extent necessary to prevent such weeds spreading to adjoining lands.

The occurrence of introduced plant species in the park is often associated with disturbed sites, in particular:

- road and trail edges along which seeds can be transported by tyres or shoes;

- former cultivated lands on the tablelands; and
- flats formerly used for grazing, especially in the Mooraback, Racecourse and Bishops Swamp areas.

The majority of the park is free of introduced species. There are known infestations of blackberry (*Rubus fruticosus*), and species such as weeping willow (*Salix babylonica*) which are transported by streams and disperse vegetatively are found in the Mooraback area. Red-flowering and pink-flowering Lantana (*Lantana camara*) is known at lower altitudes in the park, in particular along watercourses and gullies.

Blackberry infestations were once extensive in the Racecourse, Mooraback and lower Mooraback areas. Despite treatment which has reduced the area of infestation in these areas there are still significant areas of infestation elsewhere in the park to warrant continued treatment and to ensure treated areas are contained.

Many exotic trees were planted in the Mooraback area in the years prior to dedication of the park (refer to section 4.1.6). Some of these trees may be historically significant, while others, such as hawthorn (*Crataegus monogyna*), have the potential to spread throughout the park. The retention or removal of exotic trees from Mooraback will be addressed during preparation of a Conservation Plan for Mooraback (refer to section 4.2.2).

### **Guidelines and actions**

- \* Introduced plants in the park will be controlled and where practical eradicated.
- \* The occurrence, distribution and density of introduced plants will be mapped.
- \* The control of introduced plants in the park will continue with the aim of eventual eradication. Priority for control will be given to those introduced species that:
  - are declared noxious;
  - have a significant damaging impact on the natural environment of the park;
  - are causing damage to cultural resources;
  - are affecting, or may affect, neighbouring lands;
  - are new isolated occurrences; and
  - have the potential to be spread.
- \* Techniques that have minimal impacts on native ecosystems will be utilised for the control of introduced flora, and will be designed and implemented in such a manner as to minimise the impact on non-target species and other values.
- \* A review will be undertaken to determine the effectiveness of blackberry control programs, and to modify and prioritise implementation where necessary.
- \* Environments currently free of introduced species that are known to be susceptible to invasion by these species will be monitored. Control and eradication measures will be implemented in these areas if invasion occurs.

### **Introduced animals**

Introduced animal species in the park, which are of concern because of their impact on native flora and fauna and park ecosystems, include feral pigs (*Sus scrofa*), European red foxes (*Vulpes vulpes*), cats (*Felis catus*) and mosquito fish (*Gambusia holbrooki*).

Predation by mosquito fish and foxes is now considered a Key Threatening Process under Schedule 3 of the TSC Act. Both species can have a significant impact on native fauna. Foxes only occur in limited numbers in the park. There are no practical solutions to the control of mosquito fish at this stage.

Feral pigs are a declared noxious animal in NSW and are of particular concern in the Racecourse, Upper Mooraback and Lower Mooraback section of the park. The impact of pigs on the conservation values of the park is substantial, with locally extensive areas of ground disturbance encouraging invasion by weeds and initiating soil erosion.

The feral pig is controlled in the park by a combination of trapping, poisoning and both ground and aerial shooting. Aerial shooting and trapping have removed part of the pig population. The remaining pigs are proving difficult to control using these methods. Tisdell (1982) observed that under Australian conditions it was quite feasible for a feral pig population to more than double within one year. Therefore, a reduction of more than 70% of the population per year is necessary to have any real effect on the pig population. To reduce the population to a satisfactory level, it is necessary to introduce an alternative method of control. Poisoning with 1080 poison is recognised as a one of the most cost-effective techniques for the control of feral pigs and is suitable for use in this area.

Mice (*Mus musculus*), black rats (*Rattus rattus*), rabbits (*Oryctolagus cuniculus*) and brown hares (*Lepus capensis*) have also been recorded but are limited in their distribution to disturbed areas and sections of the park adjoining private property, and are therefore not a major concern. The progressive revegetation of most disturbed areas is expected to further limit their occurrence in the park.

Wild dogs (*Canis familiaris*) are known to occur in the area. They can be categorised into three groups, dingos, hybrids with domestic dogs, and feral dogs.

The NPWS considers dingos to be an integral part of the native fauna of NSW that it has the responsibility to conserve (refer to section 4.1.4 Native fauna). However, the NPWS does recognise that wild dogs emanating from NPWS estate may impact upon livestock on adjacent properties and accepts the need for management to minimise their attacks on stock. These control techniques include targeted ground baiting programs.

Wild dogs, including dingos, have been declared as pest animals under the RLP Act throughout NSW. Hence, the NPWS has a statutory obligation to control wild dogs on its estate. Under the RLP Act, however, public lands which are considered to contain high quality dingo habitat have been listed as Dingo Management Areas. This includes Werrikimbe National Park. The RLP Act requires public land managers, such as the NPWS, to assist in the preparation of a wild dog management plan for dingo management areas. These plans are to identify methods for the control of wild dogs and the conservation of dingos in these areas and are approved by the relevant local Rural Lands Protection Board (RLPB).

Straying stock from neighbouring properties, primarily cattle, are occasionally found in the park. Cooperation with neighbouring cattle owners, through the improvement to fences, has been effective in minimising stock access to the park. A Crown Lease is in the adjoining Doyles River State Forest to the south-west of the park. The lessee will be required to ensure stock do not enter the park.

Ongoing cooperative boundary fencing programs between neighbours and the NPWS is helping to minimise the problem of stock straying in to the park.

### **Guidelines and actions**

- \* Introduced fauna in the park will be controlled and where practicable eradicated.
- \* The occurrence, distribution and density of introduced fauna will be mapped.
- \* Priority for control will be given to those introduced species that:
  - have a significant impact on the natural resources;
  - are causing damage to cultural resources, and
  - are, or may potentially, affect neighbouring lands.
- \* Techniques that have minimal impacts on native ecosystems will be utilised for the control of introduced fauna, and will be designed and implemented in such a manner as to minimise the impact on non-target species and other values.
- \* Feral animal control programs will be carried out in conjunction with the Rural Lands Protection Board and adjoining landholders on either an individual basis or as a member of a control group.
- \* Domestic animals and stock will not be permitted in the park except for permissible horse riding activities (refer to section 4.3.2). Licences will not be issued for the keeping of bees in the park.
- \* Where significant economic loss results from wild dogs originating in the park, control programs along the perimeter of the park may be undertaken consistent with NPWS policy and in consultation with affected landholders and the Wild Dog Control Association.
- \* Control programs for vertebrate pest species will be prepared and progressively implemented in cooperation with adjoining neighbours and other control agencies where appropriate.
- \* The NPWS will work cooperatively with neighbours to establish and maintain park boundary fencing.
- \* Feral pigs will continue to be controlled. A review will be undertaken to determine the effectiveness of feral pig programs and to modify these programs where necessary.
- \* Assistance will be given to Wild Dog Control Associations in localised control programs where wild dogs are travelling from the park and attacking domestic stock. This includes participation or provision of resources in authorised control programs in the park.
- \* Contribute to the preparation and implementation of a wild dog management plan for the park in consultation with the local RLPB so as to assist in the control of wild dogs and conservation of dingos in the park.

#### **4.1.7. Fire management**

Fire is regarded by the NPWS as one of the established physical factors of the Australian environment. Inappropriate fire frequencies and intensities can be a threatening process to ecological communities, however, the proper management of fire is essential in avoiding the loss of native flora and fauna species. It is recognised that fire also presents a potential threat to life and property both inside

and outside the park, and therefore needs to be managed mitigate this threat as well as for the conservation of flora and fauna communities.

The NPWS has as its primary aims in fire management to:

- reduce the risk of bushfire damage to human life and property within the park and, as far as possible, prevent the movement of fire from the park;
- effectively manage fire for the protection and conservation of the natural, cultural, scenic and recreational features of Service areas; and
- cooperate with other organisations in fire management planning and implementation within any given area.

The combination of fire frequency, intensity and season of occurrence (collectively known as the fire regime) are factors influencing the distribution and composition of flora and fauna communities within the park. Through the use of prescribed fire and fire suppression capabilities, the NPWS has considerable potential to influence these factors. However, the development of an appropriate fire regime is particularly complex and requires a considerable understanding of the fire requirements of individual species and communities. This is particularly important in Werrikimbe National Park where there are large tracts of fire sensitive rainforest interspersed with fire tolerant sclerophyll communities. An inappropriate regime may compromise the World Heritage values of the park.

Scientific understanding of the fire requirements for flora communities is generally more advanced than for fauna communities, although the conservation of many plant communities and animal species depends upon a varied fire regime, including occasional high intensity fires. Over reliance on regular and low intensity fires has an unacceptable impact on critical habitat requirements for some native plants and animals.

Fire management guidelines are being developed which define fire regime thresholds for several major groups of flora communities (Bradstock, 1995). If these thresholds are exceeded either way the decline and/or extinction of flora species would be expected.

Under the *Rural Fires Act 1997*, the NPWS is a fire authority responsible for fires in the park and ensuring that fires are contained in the park. This responsibility includes the implementation of fuel management programs. The NPWS may also assist with the control and suppression of fires adjacent to reserves.

An important part of NPWS fire management is participation as a member of local Bush Fire Committees. Werrikimbe National Park is situated in Hastings and Walcha shires. Both shires have a Bush Fire Committee of which the NPWS is a member.

Bush Fire Committees prepare Plans of Operation and Bush Fire Risk Management Plans which are required under section 52 of the *Rural Fires Act*. In addition to this, the NPWS prepares Reserve Fire Management Plans that outline appropriate management strategies. Some works arising from the fire management plans may require an environmental impact assessment.

The majority of the park is within the declared Werrikimbe Wilderness Area. Fire management in this wilderness area will be undertaken with minimal environmental impact. Fuel reduction may be undertaken adjacent to neighbouring properties and park infrastructure (eg. visitor facilities and buildings) and, where



appropriate, to reduce fuel loads in the wilderness area so as to limit the extent of wildfire.

Bushfire suppression operations may necessitate the construction of temporary trails, helipads and firelines. These will be closed and rehabilitated as part of post fire operations.

### **Guidelines and actions**

- \* Fire Management Strategies will be prepared for the park. The following principles will be incorporated into the fire management strategies:
  - protect human life and property;
  - protect the wilderness values of the park;
  - maintain habitat and species diversity and avoid local extinctions of native flora and fauna species;
  - exclude fire from rainforests and habitat of threatened species known to be fire sensitive (until more is known about the fire requirements of habitats);
  - protect structures, objects and places of cultural heritage significance; and
  - minimise the risk of fire moving from the park and threatening values in surrounding land tenures, including State forests.
- \* Fire management in the park will be undertaken with minimal environmental impact and, where practicable, disturbance will be rehabilitated.
- \* In meeting its obligations under the *Rural Fires Act* the NPWS will liaise and develop cooperative strategic plans with local rural fire brigades, local government and neighbours to ensure coordination of fire management in the park and on adjoining lands.
- \* The cooperation of all relevant authorities, neighbours and visitors will be sought in preventing and reducing unplanned fires.
- \* Until research findings become available concerning the effects of fire, prescribed fire will be excluded from the following areas:
  - rainforest; and
  - habitats of threatened flora and fauna species known to be fire sensitive.
- \* Records of fire occurrence will be maintained with particular emphasis on the mapping and recording of the affected area, frequency, seasonality and intensity of fire.
- \* The NPWS will contribute to the preparation, ongoing review and implementation of Section 52 plans by the Walcha and Hastings Bush Fire Management Committees.
- \* Park interpretation and community education programs will be undertaken to explain the role of fire management.
- \* Research into fire in the natural environment will be undertaken and encouraged, particularly with respect to:
  - the management and maintenance of biodiversity; and
  - fire behaviour, fire hazard and fire risk assessment.

#### **4.1.8. Wilderness**

The declared Werrikimbe Wilderness includes important and largely undisturbed natural values with the only significant human modifications consisting of evidence of past logging in the upper Forbes River catchment, Werrikimbe Trig and the Werrikimbe Fire Trail which is used for essential management purposes only. Wherever possible, areas subjected to human disturbances in the wilderness area will be rehabilitated.

#### **Guidelines and actions**

- \* In accordance with section 9 of the *Wilderness Act 1987* and NPWS Wilderness Conservation Policy, the Werrikimbe Wilderness will be managed to:
  - restore (if applicable) and to protect the unmodified state of the area and its flora and fauna communities;
  - preserve the capacity of the area to evolve in the absence of significant human interference; and
  - permit opportunities for solitude and appropriate self-reliant recreation.
- \* The NPWS will only retain those management trails that are essential for management purposes (see map 2) in close proximity to, or within, declared wilderness areas.
- \* Wherever practicable, disturbed areas in the wilderness area will be rehabilitated. Such rehabilitation will use plant species native to the park (refer to section 4.1.3).
- \* Public awareness and appropriate use of wilderness areas will continue to be promoted and encouraged in park information and interpretative material.
- \* In order to minimise impact on wilderness values, there will be no public vehicle or horse riding access within the declared wilderness area (see the map). The prohibition of public vehicular use and horse riding in the wilderness area will be enforced through the maintenance of signs and vehicle barriers at strategic points around the wilderness perimeter.

### **4.2. CULTURAL HERITAGE**

Cultural features originating from both pre and post European settlement provide a record of human activities and interaction with the natural features of the park. Effective management of this resource requires both the protection of individual sites, places and relics and the development of an understanding of their value within the community.

#### **4.2.1. Aboriginal objects, sites and places**

Aboriginal communities have an association and connection to the land. The land and water biodiversity values within a whole landscape context are the centre of Aboriginal spirituality and contribute to Aboriginal peoples identity. Aboriginal communities associate natural resources with the use and enjoyment of valued foods and medicines, caring for the land, passing on cultural knowledge and strengthening social bonds. Aboriginal heritage and nature are inseparable from each other and need to be managed in an integrated manner across the landscape.

The NPWS presently has legal responsibility for the protection of Aboriginal sites and places but it acknowledges the right of Aboriginal people to make decisions

about their own heritage. It is therefore policy that Aboriginal communities be consulted and involved in the management of Aboriginal cultural heritage and in the promotion and presentation of their culture and history of an area controlled by the NPWS. Only a very small proportion of the park has been surveyed in detail and other Aboriginal sites may be discovered.

### **Guidelines and actions**

- \* All works which have the potential to impact upon Aboriginal sites and places will be preceded by a cultural heritage assessment prepared in consultation with members of the Kempsey and Birpai Local Aboriginal Land Councils (LALC) or other appropriate Aboriginal people.
- \* The location of Aboriginal sites will not be publicised except where:
  - The agreement of the Kempsey and Birpai LALCs and other relevant Aboriginal community organisations has been obtained;
  - A conservation study has been prepared and any management works necessary to protect the site from damage has been implemented; and
  - The site will be interpreted to promote public knowledge and appreciation of Aboriginal culture.
- \* Any interpretation of Aboriginal sites and heritage will be undertaken in conjunction with relevant Aboriginal community organisations.
- \* In agreement with the NPWS, Aboriginal cultural heritage sites may be maintained by the LALC in accordance with their traditional methods.
- \* The NPWS will encourage appropriate research into past Aboriginal use of the area.
- \* Aboriginal cultural heritage will be interpreted at the main visitor nodes in the park.
- \* The Kempsey and Birpai LALCs and other relevant Aboriginal community organisations will be consulted and invited to be actively involved in all aspects of management of Aboriginal sites and values in the park. Where appropriate all Aboriginal sites and places in the park will be protected from disturbance or damage.

### **4.2.2. Historic places**

Many of the historic places in the park have cultural significance as indicators of past use of the area, however, some sites or features may be detrimental to the conservation values of the park. For example, some exotic trees planted in the Mooraback area have the potential to spread throughout the park.

### **Guidelines and actions**

- \* A conservation plan will be prepared for the Mooraback pastoral area to establish the conservation significance and management prescriptions for the area.
- \* Potential threats from visitor and management activities to sites of historic significance will be controlled, and where possible, removed.
- \* Where appropriate the natural degradation of historic structures will be allowed to continue unless protection is specified in a conservation plan.
- \* The exotic plants in the Mooraback area, which includes old fruit trees, will be removed unless they are of historic significance and do not have the potential

to spread through the park. Before removal of any historic fruit trees, assess their significance and determine whether they should be conserved on park or elsewhere as a heritage cultivar.

### **4.3. PROMOTION AND USE OF THE PARK**

#### **4.3.1. Promotion of the park**

Werrikimbe National Park is a relatively remote park presently receiving low levels of visitation. To many visitors, the remote setting of the park is its primary attraction.

The NPWS has provided a range of visitor facilities in what was for many years one of few national parks between Walcha and Port Macquarie. With the significant addition to NPWS estate in recent years, there are now closer and more accessible national park destinations. For example, in the future Cottan-Bimbang National Park, which adjoins the Oxley Highway for 21 km, may provide additional recreation facilities to complement those in Werrikimbe National Park.

Although there have been no formal survey of visitors to the park, the NPWS consider that the principal users of the park include:

- Residents of the Northern Tablelands towns of Armidale and Walcha, and the coastal districts of Port Macquarie and Kempsey;
- Visitors to the Mid-North Coast and the Northern Tablelands;
- Special interest groups who use the park for education, training, bushwalking and research purposes; and
- Residents of Newcastle and Hunter Region, who visit the park as part of an extended weekend visitor circuit drive.

There is an expectation by the public that information about the park and its features will be available. Interpretation also assists in the protection of the park by having more informed, and therefore more caring, visitors. The park also has a significant role to play in the community as a resource for environmental study and education.

Major interpretation themes appropriate for park visitors include:

- The importance of the park as part of the CERRA World Heritage area and the importance of conserving its World Heritage values;
- Biodiversity values of the park;
- The park as an important part of a system of conservation areas along the eastern escarpment between the Northern Tablelands and the Mid North Coast of NSW;
- The importance of the Hastings and Forbes River system for catchment management;
- The appreciation of the wilderness setting of the majority of the park;
- The range of recreation opportunities and settings offered in the park, and
- The cultural heritage of the park, particularly that relating to past Aboriginal occupation and pioneer settlement at Mooraback.

Appreciation, understanding and use of the park can be achieved most effectively by interpretation programs in areas that are accessible to most visitors. Priority will, therefore, be given to:

- The provision of up-to-date printed information about features along walking tracks and other sites of interest to visitors. At present, there are very limited track notes available;

- The maintenance, revision and extension of outdoor displays in the park. At present, there are interpretative displays at Mooraback, Cobcroft, Plateau Beech and Brushy Mountain day use and camping areas;
- The improvement of interpretation along the walking track system in the park. The current extent of interpretation is generally confined to signage stating track distances, with little additional interpretation offered along walking tracks. It is also important that the purpose of management programs relating to the protection of the natural and cultural heritage of the park, and the control of introduced species and fire are promoted in the local community, particularly amongst park neighbours.

### **Guidelines and actions**

- \* Werrikimbe National Park will be promoted within the context of:
  - its importance as part of the CERRA World Heritage property and wilderness area which conserves outstanding examples of the subtropical and temperate rainforests of eastern Australia; and
  - other conservation areas along the eastern escarpment between the Northern Tablelands and the Mid-North Coast of NSW, which offer complementary recreation and environmental education opportunities.
- \* Adequate information will be provided to park visitors about the park's natural and cultural heritage, access, facilities, activities, management, legal requirements and potential hazards, through printed materials, signs and displays.
- \* The importance and purpose of management programs relating to fire, introduced species and natural and cultural heritage protection will be promoted within the local community and particularly to park neighbours.
- \* Promotion of the park will be directed towards encouraging nature-based recreational use.
- \* Brochures will continue to be distributed to appropriate visitor information outlets, user groups, Councils and NPWS offices and shops in the Northern Tablelands and Mid North Coast Regions, and at key visitor centres throughout the State.
- \* Visitor use/numbers data will be collected on a regular basis from traffic and/or walking track counters and field observations so as to provide better information for future management decisions.
- \* Assess the adequacy of the information currently provided to visitors and develop a program to service and monitor the information needs of park users.
- \* Interpretative displays will be provided (or updated) at:
  - Mooraback day use and camping area;
  - Grass Tree day use area;
  - Brushy Mountain day use and camping area; and
  - Plateau Beech day use and camping area.
- \* Interpretation along existing walking tracks emanating from the above visitor sites will be progressively upgraded.
- \* Relevant information will be provided to park visitors and local community members through the provision of printed material, signage and/or displays on:

- natural and cultural values, including World Heritage values of the park, surrounding reserves and the region generally;
- access to and within the park;
- recreation facilities and appropriate recreational activities;
- park management issues;
- legal requirements, and
- potential hazards.

\* *Discovery* ranger activities will be run during selected holiday periods at popular visitor facility areas in the park. These activities may be run on the basis of recovering all or some of the costs from participants.

#### **4.3.2.Recreation opportunities**

The size and number of national parks along the Great Escarpment edge has increased significantly in recent years, and as such recreation use patterns are still developing. With the strong growth of tourism on the mid-north coast, a steady increase in visitation to these national parks is expected. Effective management of these areas should seek to provide a range of recreation opportunities, from wilderness to facility based recreation.

Werrikimbe National Park provides a range of nature-based recreation opportunities including short easy walks on formed tracks and trails, vehicle-based camping, wilderness trips of a few days duration in the rugged untracked parts of the park. Both the eastern and western sides of the park offer 2WD access in all but wet weather, as well as vehicle-based picnic and camping facilities.

Good gravel 2WD roads provide vehicular access to both the western and eastern sides of the park (see map 2). Four wheel drive access between both sides of the park is via Racecourse Trail while two wheel drive access involves a detour of up to three hours travel time (see map 2). It is not considered practical to upgrade all of Racecourse Trail to two wheel drive standard, but there may be an opportunity to access an excellent vantage point looking north along Kunderang Brook in Oxley Wild Rivers National Park by only upgrading the western two kilometres to 2WD standard.

#### **Vehicle access**

The roads servicing the park are shown on map 2. For the purposes of this plan, three types of vehicle access are defined:

- i. 2WD park roads – unsealed gravel roads open to the public, generally providing all-weather access for 2WD vehicles.
- ii. 4WD park roads - unsealed roads open to the public but providing access suitable only for 4WD vehicles. Racecourse Trail, from Cedar Creek to Forbes River crossing, is currently such a road.
- iii. NPWS 4WD management trails - roads and vehicular tracks maintained to varying standards for management purposes, most within or partially within the Werrikimbe Wilderness Area. These trails are not available for public vehicular access.

#### **Walking and cycling**

Walking tracks enable visitors to experience the features of the park, while NPWS management trails (Mesa, Werrikimbe and Mooraback trails) also provide additional walking opportunities.

The Dingo Knob walking track has been closed as it traverses an area suspected of being infected with the pathogen *Phytophthora cinnamoni* (refer to section 4.1.5). Much of the track was also within the Werrikimbe declared wilderness area and believed to be in an area of significance to local Aboriginal people. These considerations warranted the closure and re-routing of portion of the track to form new Platypus Pools Walk.

Cycling is thought to be a relatively minor recreational use of the park. Under NPWS policy cyclists may use management trails but are prohibited on walking tracks. Walkers, cyclists and horse riders use the Bicentennial National Trail (refer to *Horseriding on the Bicentennial National Trail* below).

The park also provides wilderness walking opportunities for self-reliant visitors with advanced navigational skills.

### **Camping, picnicking and track-head facilities**

Vehicle-based day use and camping facilities are provided on the eastern and western sides of the park (see map 2). Vehicle-based camping and picnic facilities are provided at Mooraback, Plateau Beech and Brushy Mountain camping and day use areas. In addition picnic facilities are provided at Grass Tree day use area, although it is very close to the facilities at Brushy Mountain camping and day use area. The picnic facilities at Grass Tree are little used and the area would be better utilised as a track head facility for the walking track that commences here.

Short to medium length walking tracks emanate from these recreation nodes. Facilities include the provision of water, pit toilets, barbecues, picnic tables and picnic shelters. All recreation nodes in the park will provide “basic level” visitor facilities so as to protect the natural, and relatively remote, recreation setting of the park.

The Cobcroft day use area was transferred from Doyles River State Forest and incorporated into Werrikimbe National Park on the 1<sup>st</sup> January 2003. Quite a large clearing amongst a mature Eucalypt forest has been maintained in the past but with concerns about tree limb fall much of the area has been recently closed to public use. The walking opportunities are the main reason for visiting Cobcroft. Originating from Cobcroft is the Carrabeen walking track, which also provides access to the Mesa management trail for extended walking opportunities. The site experiences low levels of use and has a pit toilet and a basic day use and camping facilities.

Plateau Beech day use and camping area occurs within a large clearing, surrounded by declared wilderness and World Heritage listed rainforest. In this setting a clearing of this size is inappropriate and the southern half (or more if possible) of the clearing will be rehabilitated to indigenous plant species.

### **Wilderness recreation**

The park provides opportunities for appropriate recreation in a wilderness setting. No facilities are provided in the wilderness except for the management trail and walking track mentioned in *vehicle access* and *walking tracks* sections above.

Self reliant, nature based recreation is allowed in wilderness areas providing there are no adverse impacts to wilderness values. The potential for the degradation of wilderness values through uncontrolled use is presently unlikely, but it does warrant the monitoring of wilderness recreation activities. Wilderness users are



encouraged to make contact with NPWS staff as a means of promoting understanding and appropriate use of wilderness, and also to facilitate the monitoring of visitor levels and impacts within the wilderness area.

### **Horse riding on the Bicentennial National Trail**

Horse riding opportunities in the park occur on the Bicentennial National Trail (BNT), an interstate multi-purpose recreation trail. The BNT provides excellent riding opportunities through the western side of the park, following Racecourse Trail and Cobcroft Road. Walking and cycling are other recreational uses of the BNT (refer to the *Walking tracks* section above).

Other areas in the park are unsuitable for horse riding because most of the park is declared wilderness and in other areas there is a potential conflict with other park users, especially in camping and day use areas, on walking tracks and park roads. Horse riding is prohibited in declared wilderness areas under NPWS policy.

Currently horse riders using the BNT camp with their horses at Mooraback camping area. Horse manure has been observed at the Mooraback Camping Area and is allegedly contaminating its stream based water supply. To alleviate this problem a separate water supply may be provided for horses, the location of which will depend upon where horses can be yarded, but with adequate separation from the existing serviced camping area. An alternative campsite for BNT horse riders is considered desirable to separate horses from other campers. A number of nearby alternative campsites for BNT users are currently being investigated in consultation with the BNT Trail Coordinator.

### **Guidelines and actions**

#### Vehicle access

- \* Public vehicles are only permitted on the 2WD and 4WD park roads shown on map 2.
- \* A “Dry weather 4WD access only” sign will be erected on Cobcroft Road south of the Cobcroft day use area.
- \* The Spokes Trail will be retained for management vehicles only.
- \* Due to road surface, terrain and creek crossings, Racecourse Trail and those sections of Coachwood Road and Spokes Trail open to the public will remain as 4WD roads available to public use.
- \* Notwithstanding the action above, the feasibility of providing access to a viewing point over the Kunderang Brook valley (refer to Camping and day use areas below) will be undertaken. Options that will be investigated to access the proposed lookout will include upgrading the western end of Racecourse Trail to 2WD standard (approx. 2 km) or providing a walking track, or a combination of both forms of access. If the lookout proposal is considered feasible the western section of Racecourse Trail may be upgraded to 2WD standard and/or the walking track constructed subject to an appropriate environmental and cultural assessment of the preferred route.

#### Camping and day use areas

- \* Opportunities for camping and day use will continue to be provided. Opportunities for solitude and self-reliant recreation will also be maintained. Camping and day use areas will be managed so as to minimise potential or actual conflict between recreational users.

- \* The following camping areas will be maintained, with the site capacities indicated, at:
  - Brushy Mountain (max 15 sites);
  - Plateau Beech (max 3 sites);
  - Mooraback (max 6 sites).
- \* The following day use areas will be maintained, with site capacities indicated, at:
  - Brushy Mountain (unchanged);
  - Plateau Beech (unchanged);
  - Cobcroft (1 site), and
  - Mooraback (camping and picnicking sites are shared).
- \* Cobcroft day use area will be used as a track head carpark for walkers wishing to use the Carabeen Loop and Mesa tracks. Minimal day use facilities will be provided. Camping is not permitted in Cobcroft day use area.
- \* At Plateau Beech day use and camping area, the southern half of the clearing will be revegetated because the area originally cleared was excessive. The surrounding rainforest is both World Heritage listed and declared wilderness and the Plateau Beech day use and camping area should better reflect these values. Up to three campsites will be provided. Day use capacity, which is principally governed by the size of the large shelter, will remain unchanged.
- \* The small Grass Tree day use area will be converted to a track head facility for walkers with a six vehicle carpark. (Picnic facilities are available at nearby Brushy Mountain or Plateau Beech day use areas).
- \* Mooraback Hut (12 person capacity) will be further developed for research, educational and special interest groups through the provision of septic toilets, reticulated water and enhanced facilities within the hut. Camping (for max. 18 people) will be permitted within the immediate hut precinct (within the fenced area) providing any camping in this area is associated with the use of the hut. Mooraback Hut will be available for nature-based activities (refer to section 4.3.3).
- \* A viewing point overlooking the Kunderang Brook valley (virtually on the border of Oxley Wild Rivers National Park) will be constructed if considered feasible. Construction can only occur if there are no significant adverse effects to the environmental and cultural values, it can be constructed outside the declared wilderness, and the existing road alignment is used if the road upgrade option is chosen (refer to Vehicle access above).
- \* Backpack camping outside of defined camping facilities is allowed at locations more than 200m from park roads, management trails shown on the map, day use areas and car-based camping areas. Camping is prohibited in day use only areas.

#### Walking and cycling

- \* The walking track system will be maintained to provide an opportunity for both short and extended walks.
- \* Bicycles are permitted on the BNT, park roads and the management trails shown on map 2. Cycling activities and numbers in the park will be monitored for environmental effects and conflict with other park users. If necessary

restrictions may be placed on cycling activities and the number of participants to protect park values, visitor experience and public safety.

- \* Complete a new circuit walk, referred to as the Platypus Pools Walk, which is currently being constructed from the Mooraback camping and day use area. This track utilises part of the former Dingo Knob Track that was closed to avoid wilderness, significant cultural heritage values and/or areas found to be infected with *Phytophthora*.
- \* Mooraback and Carabeen Loops and Spokes Mountain and Mesa tracks will be maintained to “walking track” (Aust. Standard Class 3) standard only.

#### Horse riding and the Bicentennial National Trail

- \* Horse riding is only permitted in the park on the Bicentennial National Trail.
- \* The maximum horse riding group size is 20 horses (including packhorses), with no more than 20 horses allowed in the park at any one time. Private horse riding will take precedence over commercial horse riding if there be competition for available capacity.
- \* Use of minimal impact horse riding practices must be undertaken in accordance with NPWS policy and the NPWS Horse-riding Code.
- \* BNT horse riders can continue to use the camping facilities at Mooraback until a replacement camping area is provided for horse riders, should such a facility prove to be viable under the proposed feasibility study (refer below). Horses must not be brought into the existing Mooraback Camping Area, but rather must be tethered, loaded and camped overnight in an area that will be designated elsewhere in the Mooraback clearing downstream of the current camping area, where horse riders can also camp if they wish.
- \* A feasibility study will be undertaken, in consultation with the BNT Trail Coordinator, for a suitable alternative camping area for BNT horse riders in the Mooraback area. (Subject to the feasibility study outcome, the existing Mooraback camping area may continue to be used by horses riders using the BNT).
- \* A camping area for BNT users will be provided if the feasibility study and environmental assessment identify a viable alternative location.
- \* Any recreational activity, including horse riding, that has the potential to impact on park values and other users may be monitored for environmental effects and conflict with other users. Any significant impacts will be discussed with the BNT Board and other relevant users, however, conditions may be placed on horse riding activities if necessary to protect park values, visitor enjoyment (including that of horse riders) and public safety.
- \* In accordance with the MOU between the NPWS and the BNT Board Ltd, the Board will be consulted if any significant change is proposed to the route of the BNT.

#### **4.3.3. Research and education**

The purpose of appropriate scientific study is to improve the understanding of the park’s natural and cultural heritage, including World Heritage attributes, and the processes which affect them. The park’s fauna has been extensively surveyed.

Future research may establish the requirements for the management of particular species. A significant potential threat to the park's natural values may be the presence of *Phytophthora* (refer to section 4.1.5).

Major centres in the region have a wide range of tertiary education and research organisations and provide training in plant ecology, park management and nature-based tourism. As part of a strategy to encourage appropriate scientific use of the park, a prospectus will be prepared as the basis for the involvement of scientists and research organisations. The NPWS will:

- Establish priorities for research projects which reflect park management needs;
- Implement a system for the documentation and dissemination of research results, whether carried out by the NPWS or by other agencies or people; and
- Apply criteria and conditions to research to ensure park values are not compromised or threatened.

Research priorities for the park include the:

- ecology, status and distribution of communities and flora and fauna species;
- park's World Heritage values;
- effects of fire on the park's flora and fauna communities;
- management needs of rare and threatened flora and fauna species
- identification of cultural heritage sites and places; and
- impacts of introduced species and potential control measures.

Mooraback Hut was for many years the base for on-site park management. With the completion of the larger Cedar Creek field depot, 10 km north of Mooraback, many of the activities performed at Mooraback are now more suitably accommodated at Cedar Creek. This has allowed Mooraback Hut to become an accommodation base for research and education (refer to section 4.3.2).

All research will be subject to NPWS policy and procedures for the granting of permits, conduct of research and the production of results.

### **Guidelines and actions**

- \* Appropriate scientific inquiry into environmental features and processes of the park will be encouraged and controlled. A priority list for research projects will be prepared and may be amended and updated as required.
- \* A prospectus of preferred research projects will be prepared for the park and will include:
  - mapping of vegetation communities;
  - additional surveys of native flora and fauna;
  - habitat requirements of rare and threatened flora and fauna;
  - fire history of the park;
  - ecological significance of fire in the park and its use in the conservation of native flora and fauna;
  - management of introduced species;
  - surveys of Aboriginal sites and other places of significance;
  - surveys of visitor use and expectations in the park; and
  - visitor use impact.

- \* Research applications will be granted where the research has the potential to facilitate the better management of the park; and does not conflict with the objectives of park management.
- \* Research into the presence of *Phytophthora* in the park will be undertaken.
- \* Mooraback Hut will be available for approved research or educational use and may be available for hire to appropriate special interest groups that wish to pursue nature-based activities (refer to section 4.3.2).

#### **4.3.4. Management operations**

Many management operations require a system of ground and/or aerial access in addition to that provided by the park road system available to the public. Vehicular access for management purposes is often by way of management trails that are not available for public use.

There is a Travelling Stock Route (TSR) to the south of Cobcroft day use area (see map 2) that is managed by the Armidale and Kempsey RLPB. It is part of a long TSR network that links the Hastings Valley with Walcha but it is not trafficable and would require considerable work to open it. The TSR is not required for future management access and if not required for future stock movements it should be incorporated into the park.

Certain management facilities (eg. gravel pits, fire fighting water supply dams and existing huts) are required for management operations and it is not always practical to locate, or relocate, these outside the park.

Where possible, boundary fencing is maintained and vehicle access for management purposes is established, in cooperation with neighbours.

#### **Guidelines and actions**

- \* The NPWS will maintain and use management trails and facilities in a manner that minimises impact on the natural and cultural values of the park.
- \* Park boundaries will be managed in conjunction with park neighbours.
- \* The park boundary should be rationalised by incorporating unused road reserves into the park. The rationalisation of the park boundary along Cobcroft Road where the road alignment crisscrosses the boundaries of a number of land tenures will be investigated and the boundary improved if possible.
- \* Where the park boundary is adjacent to improved farming land, the NPWS will work cooperatively with neighbours to establish vehicle access where needed for management purposes.
- \* The old quarry site along Cobcroft Road will be maintained as a dam for fire fighting purposes. Areas not encompassed by the dam will be rehabilitated.

## 5. PLAN IMPLEMENTATION

This plan of management is part of a framework of management developed by the NSW NPWS. The framework includes the NPW Act, field management policies, established conservation and recreation philosophies, the NPWS Corporate Plan and strategic planning at directorate and regional levels.

The orderly implementation of this plan will be undertaken within the annual programs of the NPWS Northern Tablelands and Mid North Coast Regions.

Priorities, determined in the context of directorate and regional strategic planning, will be subject to the availability of necessary staff and funds and to any special requirements of the Director-General or Minister.

The park's World Heritage status and the wilderness declaration of much of the park give very tangible recognition to the importance of the nature conservation values of the park and will be recognised in the allocation of resources.

Regional programs are subject to ongoing review and available resources, within which, works and other activities carried out within Werrikimbe National Park will be evaluated in relation to the objectives laid out in this plan.

The environmental impact of all development proposals will continue to be assessed at all stages of the development, and any necessary investigations will be undertaken in accordance with established environmental assessment procedures.

Section 81 of the *NPW Act* requires that this plan shall be carried out and given effect to, and that no operations shall be undertaken in relation to Werrikimbe National Park unless they are in accordance with the plan. However, if after adequate investigation, operations not included in the plan are found to be justified, this plan may be amended in accordance with Section 73B of the *NPW Act*.

As a guide to the orderly implementation of this Plan, actions are summarised and prioritised in the following categories:

**High:** Actions which are imperative to the achievement of the management objectives set out in this Plan and or which need to be implemented in the near future on the basis that to not undertake the work will result in unacceptable degradation of natural and cultural resources, add significantly to the costs associated with rehabilitation, or present an unacceptable risk to public safety.

**Medium:** Those actions that are necessary to achieve the management objectives set out in this Plan, but will be undertaken as resources become available since the time frame for their implementation is not so critical.

**Low:** Those actions which are desirable, to achieving the management objectives set out in this Plan, but can wait until resources are available.

Table 1: Plan implementation

Plan reference	Key actions (summary)	Priority
<b>4.1.1 Landform, geology and soil</b>	<ul style="list-style-type: none"> <li>* Protect geological, geomorphic and pedological features.</li> <li>* Identify areas of accelerated erosion and undertake mitigation works.</li> </ul>	High Medium
<b>4.1.2 Catchment protection</b>	<ul style="list-style-type: none"> <li>* Support relevant Catchment Management Board(s).</li> <li>* Examine options to declare sections of the Forbes and Hastings Rivers as Wild Rivers under the <i>NPW Act</i>.</li> </ul>	High Low
<b>4.1.3 Native flora</b>	<ul style="list-style-type: none"> <li>* Protect the diversity and distribution of plant life and develop specific conservation programs where required.</li> <li>* Rehabilitate disturbed areas using local plant species.</li> <li>* Map and monitor occurrences of pygmy cypress pine within the park.</li> <li>* Develop specific conservation programs to protect the pygmy cypress pine from the adverse effects of fire.</li> <li>* Develop and implement rehabilitation programs for:               <ul style="list-style-type: none"> <li>– the meadow swamp communities in the Mooraback and Racecourse areas;</li> <li>– the cleared woodland and open forest areas at Mooraback, and</li> <li>– Plateau Beech day use and camping area (southern cleared section).</li> </ul> </li> <li>* Monitor World Heritage values.</li> </ul>	High  High High  High  Medium  High
<b>4.1.4 Native fauna</b>	<ul style="list-style-type: none"> <li>* Protect the diversity and distribution of native fauna and develop specific conservation programs.</li> <li>* Protect habitats of rare or threatened species.</li> <li>* Promote scientific inquiry into the fauna of the park.</li> </ul>	High  High Medium
<b>4.1.5 Pathogens</b>	<ul style="list-style-type: none"> <li>* Research <i>Phytophthora</i> in the park (refer section 4.3.3).</li> <li>* If found, establish a working group to develop procedures to contain the spread of <i>Phytophthora</i>.</li> <li>* Implement interim measures until the extent or absence of <i>Phytophthora</i> infestation in the park is determined.</li> <li>* Restrict or prohibit access in areas found to be infected with <i>Phytophthora</i> and implement management protocols for plant and equipment.</li> <li>* Close and/or re-route any access within, or in close proximity to, an infected area.</li> </ul>	High High  High  High  High
<b>4.1.6 Introduced plants and animals</b>	<ul style="list-style-type: none"> <li>* Map introduced plants and animals.</li> <li>* Identify priority species for control.</li> <li>* Utilise control techniques that have minimal impacts on native ecosystems and other values.</li> <li>* Review effectiveness of blackberry control programs, and modify and prioritise implementation where necessary.</li> <li>* Monitor environments currently free of introduced species.</li> <li>* Carry out feral animal control programs in conjunction with the RLPB and adjoining landholders.</li> </ul>	Low High High  High  Medium High

Plan reference	Key actions (summary)	Priority
	<ul style="list-style-type: none"> <li>* Prohibit domestic animals and stock except for permissible horse riding activities (refer section 4.3.2).</li> <li>* Undertake wild dog control programs in consultation with affected landholders and the Wild Dog Control Association.</li> <li>* Prepare and implement control programs for vertebrate pest in cooperation with adjoining neighbours and other agencies.</li> <li>* Work cooperatively with neighbours to establish and maintain park boundary fencing.</li> <li>* Control feral pigs and review effectiveness of control programs.</li> <li>* Assist Wild Dog Control Assoc in localised control programs.</li> <li>* Contribute to preparation and implementation of wild dog management plan.</li> </ul>	<p>High</p> <p>High</p> <p>Medium</p> <p>Medium</p> <p>High</p> <p>High</p> <p>High</p>
<b>4.1.7 Fire management</b>	<ul style="list-style-type: none"> <li>* Prepare a fire management plan for the park.</li> <li>* Liaise and develop cooperative strategic plans with local rural fire brigades, local government and neighbours.</li> <li>* Exclude prescribed fire from rainforest and habitats of threatened flora and fauna species.</li> <li>* Maintain fire records.</li> <li>* Contribute to Section 52 plans by the Walcha and Hastings Bush Fire Management Committees.</li> <li>* Explain the role of fire management in park interpretation and community education programs.</li> <li>* Undertake and encourage relevant fire research.</li> </ul>	<p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>Medium</p> <p>Medium</p>
<b>4.1.8 Wilderness</b>	<ul style="list-style-type: none"> <li>* Manage Werrikimbe Wilderness in accordance with section 9 of the <i>Wilderness Act 1987</i> and NPWS Wilderness Conservation Policy.</li> <li>* Retain only management trails that are essential for management purposes.</li> <li>* Rehabilitate disturbed areas.</li> <li>* Promote public awareness and appropriate use of wilderness areas.</li> <li>* Prohibit public vehicles and horses in wilderness.</li> </ul>	<p>High</p> <p>Medium</p> <p>High</p> <p>Medium</p> <p>High</p>
<b>4.2.1 Aboriginal sites and places</b>	<ul style="list-style-type: none"> <li>* Undertake cultural heritage assessment before undertaking works which may impact upon Aboriginal sites and places.</li> <li>* Publicise Aboriginal sites only where there is agreement from Amaroo LALC and other relevant Aboriginal community organisations; a conservation study has been prepared; and the site is to be used for interpretation.</li> <li>* Encourage research into past Aboriginal use of the area.</li> <li>* Interpret Aboriginal cultural heritage at the main visitor nodes.</li> <li>* Consult with the Amaroo LALC and other relevant Aboriginal community organisations about management and interpretation of sites and values.</li> </ul>	<p>High</p> <p>Medium</p> <p>Low</p> <p>Medium</p> <p>High</p>
<b>4.2.2 Historic places</b>	<ul style="list-style-type: none"> <li>* Prepare a conservation plan for Mooraback pastoral area.</li> </ul>	<p>Medium</p>



Plan reference	Key actions (summary)	Priority
	<ul style="list-style-type: none"> <li>* Control threats to historic features or places.</li> <li>* Allow the natural degradation of historic structures to continue where appropriate.</li> <li>* Remove exotic plants in the Mooraback area, unless they are of historic significance and do not have the potential to spread.</li> </ul>	<p>High Low  Medium</p>
<b>4.3.1 Promotion of the park</b>	<ul style="list-style-type: none"> <li>* Promote the Park within the context of a CERRA World Heritage property and Wilderness Area and other complimentary conservation areas in the region.</li> <li>* Provide relevant information to park visitors through printed material, signage and/or displays.</li> <li>* Promote the importance and purpose of management programs.</li> <li>* Promote nature-based recreational use.</li> <li>* Distribute park information to appropriate outlets.</li> <li>* Regularly collect visitor use/numbers data.</li> <li>* Assess visitor information, service and monitor information needs.</li> <li>* Provide (or update) interpretative displays at: Mooraback day use and camping area; Grass Tree day use area; Brushy Mountain day use and camping area; and Plateau Beech day use and camping area.</li> <li>* Upgrade interpretation along walking tracks emanating from the above visitor sites.</li> <li>* Conduct <i>Discovery</i> ranger activities during selected holiday periods at popular visitor facility areas.</li> </ul>	<p>High  High  Medium  Medium High Medium Medium  Medium  Medium  Low</p>
<b>4.3.2 Recreation Opportunities</b>	<p><u>Vehicle access</u></p> <ul style="list-style-type: none"> <li>* Allow vehicles on park roads shown on map 2.</li> <li>* Erect a “Dry weather 4WD access only” sign on Cobcroft Road south of the Cobcroft camping and day use area.</li> <li>* Retain the Spokes Trail for management vehicles only.</li> <li>* Maintain Racecourse Road, Coachwood Road and part of Spokes Trail as 4WD trails available to public use.</li> <li>* Investigate feasibility of providing access to a viewing point over the Kunderang Brook valley.</li> </ul> <p><u>Camping and day use areas</u></p> <ul style="list-style-type: none"> <li>* Maintain the following camping areas at the site capacities indicated: <ul style="list-style-type: none"> <li>– Brushy Mountain (max 15 sites);</li> <li>– Plateau Beech (max 3 sites);</li> <li>– Mooraback (max 6 sites).</li> </ul> </li> <li>* Maintain the following day use areas at the site capacities indicated: <ul style="list-style-type: none"> <li>– Brushy Mountain (unchanged);</li> <li>– Plateau Beech (unchanged);</li> <li>– Cobcroft (max 1 site), and</li> <li>– Mooraback (camping and picnicking sites are</li> </ul> </li> </ul>	<p>High Medium  High Medium  Low  High  High</p>

Plan reference	Key actions (summary)	Priority
	<p>shared).</p> <ul style="list-style-type: none"> <li>* Cobcroft day use area will be used as a track head carpark for walkers. Minimal day use facilities will be provided.</li> <li>* Rehabilitate southern half of the clearing at Plateau Beech day use and camping area. Provide up to three campsites. Maintain current day use capacity.</li> <li>* Grass Tree day use area will be converted to a track head facility for walkers with a six vehicle carpark.</li> <li>* Mooraback Hut will be further developed for research, educational and special interest groups. Camping will be permitted within the immediate hut precinct providing any camping in this area is associated with the use of the hut.</li> <li>* Investigate the potential development of a viewing point over the Kunderang Brook valley.</li> </ul> <p><u>Walking and cycling</u></p> <ul style="list-style-type: none"> <li>* Maintain the walking track system. Permit bicycles on the BNT, park roads and the management trails shown on map 2. Prohibit bicycles on walking tracks.</li> <li>* Complete the Platypus Pools Walking Track from the Mooraback camping and day use area.</li> <li>* Mooraback and Carabeen Loops and Spokes Mountain and Mesa tracks will be maintained to “walking track” (Aust. Standard Class 3) standard only.</li> <li>* Monitor cycling activities, numbers and impacts.</li> </ul> <p><u>Horse riding and the Bicentennial National Trail</u></p> <ul style="list-style-type: none"> <li>* Permit horse riding only on the Bicentennial National Trail.</li> <li>* Promote NPWS Horse-riding Code.</li> <li>* Designate an alternative area for horse use downstream of the current camping area while feasibility study underway.</li> <li>* Undertake a feasibility study, in consultation with the BNT Trail Coordinator, for a suitable alternative camping area for BNT horse riders in the Mooraback area.</li> <li>* A camping area for BNT users will be provided if the feasibility study and environmental assessment identify a viable alternative location.</li> <li>* Monitor horse riding activities, numbers and impacts.</li> </ul>	<p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Medium</p> <p>Low</p> <p>High</p> <p>Medium</p> <p>High</p> <p>High</p> <p>High</p> <p>Medium</p> <p>Medium</p> <p>High</p>
<p><b>4.3.3 Research and education</b></p>	<ul style="list-style-type: none"> <li>* Encourage and control appropriate scientific inquiry and prepare a priority list for research projects. Prepare a prospectus of preferred research projects.</li> <li>* Undertake research into <i>Phytophthora</i> in the park.</li> </ul>	<p>High</p> <p>High</p>
<p><b>4.3.4 Management operations</b></p>	<ul style="list-style-type: none"> <li>* Manage park boundaries in conjunction with neighbours.</li> <li>* Incorporate unused road reserves into the park. Investigate the rationalisation of the park boundary along Cobcroft Road where the road alignment crisscrosses the boundaries of a number of land tenures.</li> <li>* Work cooperatively with neighbours to establish vehicle access where needed for management purposes.</li> <li>* Maintain the old quarry site along Cobcroft Road as a dam</li> </ul>	<p>Medium</p> <p>Medium</p> <p>High</p> <p>Medium</p>

<b>Plan reference</b>	<b>Key actions (summary)</b>	<b>Priority</b>
	for fire fighting purposes. Rehabilitate areas not encompassed by the dam.	

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## APPENDIX 1. RARE OR THREATENED PLANTS KNOWN TO OCCUR IN WERRIKIMBE NP<sup>1</sup>

ROTAP species are defined as those listed in "Rare or Threatened Australian Plants" by J.D. Briggs and J.H. Leigh (1996). The only exception is the *Philothea* which has been described since the above publication and was assigned an appropriate ROTAP code in the descriptive paper.

Species	Localities/Comments
<b><i>Acacia barringtonensis</i></b> Barrington Wattle ROTAP Code: 3RCa TSC Act: Not listed	Locally common shrub in heath on granite in the far north of the park; i.e. where the Racecourse Trail crosses the Forbes River through to Grass Tree Day use Area and Brushy Mountain camping and day use area.
<b><i>Acacia tessellata</i></b> ROTAP Code: 2RC- TSC Act: Not listed	Locally common shrub occurring in two very different habitats: 1. around rainforest margins on the relatively fertile sediments, eg. along the Mesa Trail; and 2. in shallow acidic soils on granite outcrops, eg. on top of Mt Werrikimbe.
<b><i>Callitris oblonga</i></b> Pygmy Cypress Pine ROTAP Code: 3VCa TSC Act: Schedule 2 (Vulnerable)	Known from one location only (where the Werrikimbe Trail crosses the Hastings River). Could potentially occupy other granitic areas along creeklines.
<b><i>Chiloglottis anaticeps</i></b> Bird Orchid ROTAP Code: 2KC- TSC Act: Not listed	A very rare orchid recorded in the east of the park, according to Briggs & Leigh (1996).
<b><i>Chiloglottis sphyrnoides</i></b> Bird Orchid ROTAP Code: 3KC- TSC Act: Not listed	Locally common orchid at high altitudes in the west of the park. Found on fertile soils in sclerophyll forest eg. at Cobcroft day use area.
<b><i>Cryptandra lanosiflora</i></b> Woolly Cryptandra ROTAP Code: 3RCa TSC Act: Not listed	Grows on granite outcrops in the centre of the park eg. on Mt. Werrikimbe and 200 metres upstream of where the Werrikimbe Trail crosses the Hastings River.
<b><i>Cryptocarya nova-anglica</i></b> Mountain Laurel ROTAP Code: 3RCa TSC Act: Not listed	A small rainforest tree restricted to cool temperate rainforest at high altitudes. Somewhere in the east of the park according to Briggs & Leigh (1996), possibly around Plateau Beech Day use Area.
<b><i>Eucalyptus scias ssp. apoda</i></b> Large-fruited Red Mahogany ROTAP Code: 3K TSC Act: Not listed	Very short tree (about 5 m tall) apparently restricted to rocky areas on top of Mt Werrikimbe. Note that the plants there differ from <i>Eucalyptus scias ssp. apoda</i> elsewhere in the state and are likely to be a new subspecies. If this is the case then the population in Werrikimbe NP is highly significant and represents the only known individuals of a critically endangered taxa.
<b><i>Euphrasia ciliolata</i></b> ROTAP Code: 2KC- TSC Act: Not listed	A small herb known from two localities in the park: 1. around Racecourse Swamp on metasediments and 2. where Werrikimbe Trail crosses the Hastings River on sandy granitic soil.
<b><i>Goodenia fordiana</i></b> ROTAP Code: 2RC- TSC Act: Not listed	The origin of the Werrikimbe record of this small herb is uncertain. It is possible that it may occur in wet sclerophyll forest in the eastern half of the park.

<sup>1</sup> Based on report "Rare or Threatened Australian Plants (ROTAPs) occurring in Werrikimbe National Park" by L. Copeland, NPWS Northern Directorate, January 1999.

Species	Localities/Comments
<p><b><i>Grevillea acanthifolia</i> ssp. <i>stenomera</i></b>            ROTAP Code: 3RC-            TSC Act: Not listed</p>	<p>This spreading shrub 1 metre high occurs in low numbers around the margins of some swamps and moist depressions in granitic areas eg. where the Werrikimbe Trail crosses the Hastings River.</p>
<p><b><i>Grevillea linsmithii</i></b>            ROTAP Code: 3RCa            TSC Act: Not listed</p>	<p>Locally common in remote granitic areas eg. along the Forbes River in the middle of the park.</p>
<p><b><i>Hibbertia villosa</i></b>            Downy Guinea Flower            ROTAP Code: 3KC-            TSC Act: Not listed</p>	<p>Small shrub sparsely distributed in granitic areas in the northern section of the park e.g. at Grass Tree Day use Area.</p>
<p><b><i>Hibbertia</i> sp. 5</b>            ROTAP Code: 3RC-            TSC Act: Not listed</p>	<p>Small shrub observed on a single rocky knoll 4 km north-east of Mooraback Hut. Probably more widespread in other rocky areas.</p>
<p><b><i>Leucopogon cicatricatus</i></b>            Beard Heath            ROTAP Code: 3RC-            TSC Act: Not listed</p>	<p>Small shrub sparsely distributed in granitic areas, particularly on rock outcrops. Exact localities in the park are unclear but the Werrikimbe record is reliable (Briggs and Leigh, 1996).</p>
<p><b><i>Marsdenia longiloba</i></b>            Watery Milk Vine            ROTAP Code: 3RC-            TSC Act: Schedule 1 (Endangered)</p>	<p>Slender rainforest vine recorded from a single plant near Brushy Mountain. This very rare plant could potentially be widespread in some of the more remote rainforest areas.</p>
<p><b><i>Melaleuca groveana</i></b>            Grove's Paperbark            ROTAP Code: 3RC-            TSC Act: Schedule 2 (Vulnerable)</p>	<p>This shrub is reported to occur on granite outcrops along Carey's Trail. It could potentially be widespread in similar habitats in the south of the park.</p>
<p><b><i>Olearia gravis</i></b>            Daisy Bush            ROTAP Code: 3KC-            TSC Act: Not listed</p>	<p>This shrub 1 metre tall is known to occur in a single population 1 km north of Mount Werrikimbe. At least 100 plants have been observed, most of which are growing on metasedimentary substrates.</p>
<p><b><i>Philotheca myoporoides</i> ssp. <i>obovatifolia</i></b>            Broad-leaved Wax-flower            ROTAP Code: 2RCt            TSC Act: Schedule 1 (Endangered)</p>	<p>Until recently this tall shrub was believed to be confined to a single location in Queensland. A healthy population of at least 200 plants has since been discovered on Mount Werrikimbe.</p>
<p><b><i>Pultenaea pycnocephala</i></b>            ROTAP Code: 3RCa            TSC Act: Not listed</p>	<p>Low spreading shrub observed in granitic areas on Mount Werrikimbe and around Brushy Mountain camping and day use area and Grass Tree day use area. Probably more widespread throughout heathy areas on granite.</p>
<p><b><i>Shistotylus purpuratus</i></b>            ROTAP Code: 3RCi            TSC Act: Not listed</p>	<p>Epiphytic orchid recorded in rainforest areas in the east of the park according to Briggs and Leigh (1996).</p>
<p><b><i>Thelionema grande</i></b>            Tufted Granite Lily            ROTAP Code: 3RC-            TSC Act: Not listed</p>	<p>Tufted herb 40 cm tall recorded from just a few plants on top of Mount Werrikimbe. Possibly more widespread on other granite outcrops throughout the park.</p>
<p><b><i>Thesium australe</i></b>            Austral Toadflax            ROTAP Code: 3VCi+            TSC Act: Schedule 2 (Vulnerable)</p>	<p>Slender parasitic herb 30 cm tall observed growing on the roots of Kangaroo Grass 300 m north of Mooraback Hut. Further populations are likely to exist in other grassy areas on fertile soils.</p>
<p><b><i>Thismia rodwayi</i></b>            ROTAP Code: 3RC-+            TSC Act: Not listed</p>	<p>Very small herb known to occur in amongst litter on the floor of rainforest patches. Exact location/s unclear but definitely recorded in the park according to Briggs and Leigh (1996) and the "Flora of NSW".</p>

## Summary

Scientific Name	TSC Act (Schedule 1)	TSC Act (Schedule 2)	ROTAP Code <sup>2</sup>	Scientific Name	TSC Act (Schedule 1)	TSC Act (Schedule 2)	ROTAP Code
<i>Acacia barringtonensis</i>			3RCa	<i>Hibbertia villosa</i>			3KC-
<i>Acacia tessellata</i>			2RC-	<i>Hibbertia</i> sp. 5 (New England)			3RC-
<i>Callitris oblonga</i>		✓	3VCa	<i>Leucopogon cicatricatus</i>			3RC-
<i>Chiloglottis anaticeps</i>			3KC-	<i>Marsdenia longiloba</i>	✓		3RC-
<i>Chiloglottis sphyrnoides</i>			2KC-	<i>Melaleuca groveana</i>		✓	3RC-
<i>Cryptandra lanosiflora</i>			3RCa	<i>Olearia gravis</i>			3KC-
<i>Cryptocarya nova-anglica</i>			3RCa	<i>Philotheca myoporoides</i> subsp. <i>obovatifolia</i>	✓		2RCt
<i>Eucalyptus scias</i> ssp. <i>apoda</i>			3K	<i>Pultenaea pycnocephala</i>			3RCa
<i>Euphrasia ciliolata</i>			2KC-	<i>Schistotylus purpuratus</i>			3RCi
<i>Goodenia fordiana</i>			2RC-	<i>Thelionema grande</i>			3RC-
<i>Grevillea acanthifolia</i> ssp. <i>stenomera</i>			3RC-	<i>Thesium australe</i>		✓	3VCi+
<i>Grevillea linsmithii</i>			3RCa	<i>Thismia rodwayi</i>			3RC-+

<sup>2</sup> ROTAP Codes

2 Geographic Range in Australia < 100km;

3: Geographic Range in Australia > 100 km;

**V** *Vulnerable*, not presently endangered but at risk over longer period (20-50 years) of disappearing through continued depletion or which occurs on land whose future use is likely to change and threaten its survival;

**R** *Rare*, taxon which is rare in Australia but which does not currently have any identifiable threat. Could be relatively large population in a very restricted area, or smaller populations over a wide range;

**K** *Poorly Known*, taxon suspected but not definitely known to belong to one of the above categories. Accurate field description information is currently inadequate;

**C** *Reserved*, with at least one population within a national park or other proclaimed conservation area;

**a** 1000 plants or more are known to occur within a conservation reserve(s);

**i** less than 1000 plants or more are known to occur within a conservation reserve(s);

- reserved population size is not accurately known;

**t** total known population reserved; and

+ Overseas occurrence



**APPENDIX 2. THREATENED FAUNA KNOWN TO OCCUR IN  
WERRIKIMBE NP<sup>3</sup>**

<b>Schedule One (Endangered)</b>		
<b>Scientific Name</b>	<b>Common Name</b>	<b>Known Habitat</b>
<i>Mixophyes iteratus</i>	Giant Barred Frog	Tall open forest and rainforest, including cool temperate rainforest, close to permanent running water.
<i>Pseudomys oralis</i>	Hastings River Mouse	High altitude sites with high rainfall and dense cover of ferns, grasses and sedges beneath a tall open forest.
<b>Schedule Two (Vulnerable)</b>		
<b>Scientific Name</b>	<b>Common Name</b>	<b>Known Habitat</b>
<i>Litoria subglandulosa</i>	New England Tree Frog	Small streams in New England region.
<i>Mixophyes balbus</i>	Barred Frog	Tall open forest and rainforest, including cool temperate rainforest, close to permanent running water.
<i>Philoria sphagnicolus</i>	Sphagnum Frog	Cool temperate rainforest, wet tall open forest and sphagnum moss beds, only at elevations greater than 700 metres. It is usually found in burrows either in moss or damp soil, or under rocks and logs.
<i>Ptilinopus magnificus</i>	Wompoo Fruit-dove	Large undisturbed patches of rainforest.
<i>Calyptorhynchus lathami</i>	Glossy Black-cockatoo	Closed forests and open woodlands primarily in stands containing black she-oak ( <i>Allocasuarina littoralis</i> ).
<i>Ninox strenua</i>	Powerful Owl	Dense foliage, often along streams between ridges covered with eucalypt forest.
<i>Tyto novaehollandiae</i>	Masked Owl	Eucalypt forest and woodland, requiring partial clearing or forest edges for hunting; roosts in the dense cover of gullies and caves.
<i>Tyto tenebricosa</i>	Sooty Owl	Pockets of rainforest and wet eucalypt forest, roosting in tree trunk hollows.
<i>Atrichornis rufescens</i>	Rufous Scrub-bird	Dense undergrowth of cool-temperate rainforest and adjacent eucalypt forest.
<i>Pachycephala olivacea</i>	Olive Whistler	Rainforest and eucalypt forest above 500 metres elevation.
<i>Phascolarctos cinereus</i>	Koala	Eucalypt forest and woodland, especially in areas containing Manna Gum <i>Eucalyptus viminalis</i> , a recognised feed tree species.
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	Extensive areas of forest and woodland.

<sup>3</sup> Based on Atlas of NSW Wildlife records (January 2001) and NPWS Northern Tablelands Regional Office archival records.

<b>Schedule Two (Vulnerable) - continued</b>		
<b>Scientific Name</b>	<b>Common Name</b>	<b>Known Habitat</b>
<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	Dry sclerophyll forests and woodlands, preferring open forests with a sparse ground cover.
<i>Planigale maculata</i>	Common Planigale*	Rainforest, sclerophyll forests, grasslands, marshlands and rocky areas.
<i>Macropus parma</i>	Parma Wallaby	Wet tall open forest with a thick shrubby understorey.
<i>Thylogale stigmatica</i>	Red-legged Pademelon*	Solitary, prefers rainforest, but also occurs in wet sclerophyll forests and occasionally dry vine scrubs.
<i>Potorous tridactylus</i>	Long-nosed Potoroo	Dry and wet sclerophyll forests.
<i>Petaurus australis</i>	Yellow-bellied Glider	Tall, mature wet eucalypt forests.
<i>Petaurus norfolcensis</i>	Squirrel Glider	Wet forest areas bordering on rainforest.
<i>Mormopterus norfolkensis</i>	Eastern Little Mastiff-bat*	Appears to live in sclerophyll forest and woodland.
<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	Roosts in stem holes of living eucalypts. Forages mostly above the forest canopy, in open woodland or over water.
<i>Miniopterus australis</i>	Little Bent-wing Bat*	Caves and tunnels during the day, foraging for insects by night beneath the canopy of well-timbered habitats. Frequently shares roosting sites with the Common Bent-wing Bat.
<i>Miniopterus schreibersii</i>	Common Bent-wing Bat*	Caves and tunnels during the day, foraging for insects by night beneath the canopy of well-timbered habitats. Frequently shares roosting sites with the Little Bent-wing Bat.
<i>Myotis adversus</i>	Large-footed Mouse-eared Bat*	In colonies of at least 10-15, living in caves, mines etc., and dense foliage, close to permanent water.
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat*	Tree-lined creeks and the junction of woodlands and cleared paddocks; less frequently seen foraging in rainforests.
<i>Mastacomys fuscus</i>	Broad-toothed Rat*	Moderate to dense cover of grasses, sedges and shrubs.

\* = Record not confirmed by Atlas of NSW Wildlife.

## **APPENDIX 3. AUSTRALIAN WORLD HERITAGE MANAGEMENT PRINCIPLES**

### **1 General principles**

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.

1.02 The management should provide for public consultation on decisions and actions that may have a significant impact on the property.

1.03 The management should make special provision, if appropriate, for the involvement in managing the property of people who:

- (a) have a particular interest in the property; and
- (b) may be affected by the management of the property.

1.04 The management should provide for continuing community and technical input in managing the property.

### **2 Management planning**

2.01 At least 1 management plan should be prepared for each declared World Heritage property.

2.02 A management plan for a declared World Heritage property should:

- (a) state the World Heritage values of the property for which it is prepared; and
- (b) include adequate processes for public consultation on proposed elements of the plan; and
- (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
- (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
- (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
- (f) promote the integration of Commonwealth, State or Territory and local government responsibilities for the property; and
- (g) provide for continuing monitoring and reporting on the state of the World Heritage values of the property; and
- (h) be reviewed at intervals of not more than 7 years.

### **3 Environmental impact assessment and approval**

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).

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.

3.03 The assessment process should:

- (a) identify the World Heritage values of the property that are likely to be affected by the action; and
- (b) examine how the World Heritage values of the property might be affected; and
- (c) provide for adequate opportunity for public consultation.

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.

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.

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.

