

MOUNT KAPUTAR NATIONAL PARK
PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

Part of the Department of Environment and Conservation (NSW)

May 2006

This plan of management was adopted by the Minister for the Environment on 25th May 2006.

Acknowledgments

This plan of management is based on a draft prepared by staff of the Narrabri Area of the National Parks and Wildlife Service.

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FOREWORD

Mount Kaputar National Park is located 580km north-west of Sydney, between the towns of Narrabri, Boggabri, Barraba and Bingara. It covers an area of 36,816 hectares of mountainous country in the Nandewar Ranges.

Mount Kaputar National Park comprises the largest area of remnant vegetation in the Nandewar Region and is therefore of great significance in terms of the conservation of native plants. With an altitudinal range of over 1000 metres, the park includes a number of clearly defined vegetation zones from semi-arid woodland and open forest to sub-alpine and heathland communities. The park also supports a number of rare and endangered plant and animal species, and is the north-western limit of several plant and bird species.

Mount Kaputar National Park contains many outstanding examples of landforms associated with volcanism. These include a circular set of dykes and the remains of numerous tiered lava terraces. Another significant geomorphological site is Sawn Rocks, the name given to one of the best examples of columnar jointing in Australia.

The Nandewar Range was once occupied by Aboriginal people of the Kamilaroi nation. It also figured prominently in a number of journals of exploration during the first half of the 1800s. Mount Kaputar National Park contains a number of sites of cultural heritage including Aboriginal sites and remnants of early pastoral use.

The Nandewar Ranges have long been a recreational focus for surrounding communities, especially as the Kaputar Plateau offers a cool refuge from the hot plains and spectacular scenic views. It has been a bushwalking area since the 1880s, and a road to the Tops was completed in 1957. Today the park provides for those wanting vehicle access, camping, picnicking and short walking tracks, as well as those wanting more adventurous activities including wilderness experiences.

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

This plan of management establishes the scheme of operations for Mount Kaputar National Park. In accordance with Section 73B of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.

Bob Debus
Minister for the Environment

CONTENTS

1. INTRODUCTION	1
2. MANAGEMENT CONTEXT	2
2.1 National Parks and Wilderness in New South Wales.....	2
2.2 Mount Kaputar National Park.....	3
2.2.1 Location, Gazettal and Regional Setting.....	3
2.2.2 Geological and Geomorphological Values	3
2.2.3 Landscape and Catchment Values	4
2.2.4 Biological Values.....	4
2.2.5 Cultural Heritage Values	8
2.2.6 Recreational Values.....	9
2.2.7 Scientific and Educational Values	9
2.2.8 Summary Statement of Significance.....	10
3. OBJECTIVES OF MANAGEMENT.....	11
4. POLICIES AND FRAMEWORK FOR MANAGEMENT.....	12
4.1 Nature Conservation.....	12
4.1.1 Geology, Landform, Soils and Water Quality	12
4.1.2 Native Vegetation	14
4.1.3 Native Animals.....	16
4.1.4 Wilderness.....	17
4.1.5 Fire Management.....	18
4.1.6 Introduced Plants and Animals	22
4.2 Cultural Heritage.....	23
4.2.1 Aboriginal Heritage	24
4.2.2 Non-Aboriginal History	26
4.3 Use of the Area.....	27
4.3.1 Promotion and Interpretation	28
4.3.2 Recreation Opportunities	29
4.3.3 Vehicle Access	30
4.3.4 Camping and Picnicking Facilities.....	32
4.3.5 Cabins at Dawson's Spring.....	34
4.3.6 Firewood.....	35
4.3.7 Walking Tracks	35
4.3.8 Horse Riding.....	36
4.3.9 Rock-climbing and other Adventure Activities.....	36
4.3.10 Cycling.....	37
4.3.11 Research	37
4.3.12 Management Operations	38
5. PLAN IMPLEMENTATION	40
6. SELECTED BIBLIOGRAPHY	42
MAP 1. MOUNT KAPUTAR NATIONAL PARK	centre pages
MAP 2. KAPUTAR PLATEAU AREA	29

1. INTRODUCTION

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

The procedures for the exhibition and adoption of plans of management are specified in the NPW Act and involve the following stages:

- The draft plan is placed on public exhibition for at least 90 days and any person may comment on it;
- The plan and submissions received on the plan are referred to the Regional Advisory Committee for consideration;
- The plan, submissions and any advice from the Regional Advisory Committee are referred to the National Parks and Wildlife Advisory Council for consideration;
- The plan, submissions and the recommendations of the Advisory Council are referred to the Minister for the Environment, and a copy referred to the Regional Advisory Committee;
- After considering the submissions, the recommendations of the Advisory Council and any advice from the Regional Advisory Committee, the Minister may adopt the plan or may refer the plan back to the NPWS and Council for further consideration.

A new draft plan of management for Mount Kaputar National Park was placed on public exhibition from 15 October 2004 until 7 February 2005. The exhibition of the draft plan attracted 16 submissions that raised 21 issues. All submissions were carefully considered before adopting this plan.

This plan of management replaces the plan of management for Mount Kaputar National Park which was adopted in 1981 and amended in 2000.

2. MANAGEMENT CONTEXT

2.1 National Parks and Wilderness in New South Wales

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

National parks are reserved under the *National Parks and Wildlife Act 1974* to protect and conserve areas containing outstanding or representative ecosystems, natural or cultural features or landscapes or phenomena that provide opportunities for public appreciation and inspiration and sustainable visitor use.

Under the Act, national parks are managed to:

- conserve biodiversity, maintain ecosystem functions, protect geological and geomorphological features and natural phenomena and maintain natural landscapes;
- conserve places, objects, features and landscapes of cultural value;
- protect the ecological integrity of one or more ecosystems for present and future generations;
- promote public appreciation and understanding of the park's natural and cultural values;
- provide for sustainable visitor use and enjoyment that is compatible with conservation of natural and cultural values;
- provide for sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to conservation of natural and cultural values; and
- provide for appropriate research and monitoring.

National parks are part of the regional pattern of land use. Management of national parks aims to minimise disturbance to natural and cultural heritage. Other land uses, for example agriculture, forestry and mining, are distinguished by an acceptance or encouragement of environmental modification. National parks, therefore, provide for only a limited part of the range of land uses in a region.

Wilderness areas are declared under the *Wilderness Act 1987*. They are large natural areas of land that, together with their native plant and animal communities, are essentially unchanged by human activity. It is recognised that even in the most untouched landscapes there is evidence of human impact, such as airborne pollution or introduced species. Areas classified as wilderness, however, are amongst the least modified and undisturbed landscapes that we have left to us.

Wilderness areas are necessary for the long-term protection of biological diversity and serve as scientific reference areas. An important purpose of wilderness areas is to provide opportunities for solitude and appropriate self-reliant recreation. Protection of natural values, however, has priority over providing for recreational use of wilderness areas.

2.2 Mount Kaputar National Park

2.2.1 Location, Gazettal and Regional Setting

Mount Kaputar National Park covers a large proportion of the Nandewar Range, which lies some 580km north-west of Sydney. The park covers a total area of 36,816 hectares. A further 4,377ha has been acquired by the National Parks and Wildlife Service but not yet gazetted as part of the park. The park is located within the boundaries of Gwydir Shire Council, Tamworth Regional Council, Moree Plains Shire Council and Narrabri Shire Council.

Mount Kaputar was established as a park in 1925 when 775ha around the summit of Mount Kaputar was proclaimed a Reserve for Public Recreation. In 1927 the Namoi Shire surrendered control of the reserve to a Trust comprising members of the Nandewar Mountain League. In 1959 this reserve together with additional lands extending to Coryah Gap was designated Mount Kaputar National Park and managed by the Trust. In 1967, with the passage of the National Parks and Wildlife Act, the park which at that time was 14,244ha in size came under the control of the newly established National Parks and Wildlife Service.

The rugged and inaccessible nature of the Nandewar Ranges largely precluded their settlement for agricultural purposes. Accordingly they remained relatively unmodified and in 1982 three areas were declared as wilderness under the *National Parks and Wildlife Act 1974*, and subsequently under the *Wilderness Act 1987*.

2.2.2 Geological and Geomorphological Values

The Nandewar Mountains are a complex elongated shield volcano that erupted intermittently between 17-21 million years ago. Subsequent erosion has removed approximately one thousand vertical metres of the mass of this volcanic pile and dispersed it across the western flood plains.

Approximately twenty-one million years ago this part of the Indian-Australian tectonic plate, on its migration north following the break-up of Gondwana, drifted over a "hot spot" or place where the earth's molten interior rises close to the surface from 7 km below. Volcanic eruptions began in this area in what is now the northern section of the park near Killarney Gap, and slowly moved south to the vicinity of the Kaputar Plateau. Repeated eruptions in the Nandewar Range area occurred over a period of 4 million years building a massive volcano 2500m high and 50km across. This "hot spot" in the earth's crust formed a migrating chain of volcanoes as Australia moved northwards resulting in the formation of the Warrumbungle Range 14 million years ago and Mount Canobolas near Orange, some 12-11 million years ago.

Mount Kaputar National Park demonstrates many outstanding examples of landforms associated with volcanism. These include the remains of numerous tiered lava terraces such as Lindsay Rock Tops and those south of Bundabulla and Eckford's Lookouts. These show phases of volcanic activity while the Governor, Ningadhun, Euglah Rock and Camels Hump demonstrate the processes of erosion whereby individual features of volcanism have been isolated. One of the most spectacular of these is Mount Yulludunida, a circular set of dykes.

A significant geomorphological site in Mount Kaputar National Park is Sawn Rocks, the name given to one of the best examples of columnar jointing in Australia. The site is located in the northern part of Mount Kaputar National Park and is geologically significant for its well-preserved pentagonal columns of trachyte. Sawn Rocks demonstrates the formation of parallel, prismatic columns that are formed as a result of uniform contraction during the slow and even cooling of a trachyte flow.

2.2.3 Landscape and Catchment Values

Altitudes in the Mount Kaputar National Park range from 1510 metres above sea level at the summit of Mount Kaputar to 440 metres in Upper Bullawa Creek. A combination of variations in altitude, aspect and landform across the Nandewar Range has produced a great diversity of microclimates throughout the park. The park includes the upper catchments of approximately ten creeks and rivers, which carry intermittent flows beyond the park boundaries. Some catchments originate in the sub-alpine areas of the Nandewar Range where higher rainfall levels result in more continuous flows.

Lookouts of the Kaputar Plateau area and mountain peaks such as Yulludunida and Mount Coryah offer magnificent views of this eroded volcanic landscape and distant views of the Warrumbungle Range 150km to the south. Views of the western plains reveal the contrast between cleared agricultural areas extending north-west of Wee Waa and north to Moree, and the large expanse of the Pilliga forest. Views to the east feature the undulating rural landscape looking towards the Great Dividing Range.

2.2.4 Biological Values

Mount Kaputar National Park comprises the largest area of remnant vegetation in the Nandewar Interim Biogeographic Region of Australia (IBRA Region) (Lanyon, 1999) and is therefore of great significance in terms of the conservation of native plants. The Nandewar IBRA region is one of the most extensively cleared areas in Australia with 74% of the native vegetation cleared for agriculture and less than 5% in protected areas (2% in the Park). Mount Kaputar National Park is considered to be the most ecologically viable tract of land for native biota in the Nandewar IBRA region.

With an altitudinal range of over 1000 metres, Mount Kaputar National Park includes a number of clearly defined vegetation zones from semi-arid woodland and open forest to sub-alpine and heathland communities. Few other conservation areas in Australia demonstrate such a range of vegetation clines over such a short distance.

The large size of Mount Kaputar National Park also contributes to its value for conservation. Most conservation areas in the north-west slopes of NSW are only small remnants surrounded by extensive agriculture. Two exceptions are the Warrumbungle National Park (23,198ha) and the Pilliga Nature Reserve (approximately 84,000ha). Although the Warrumbungle National Park is also a shield volcano, it demonstrates subtle differences in landform and ecology from Mount

Kaputar. The Pilliga Nature Reserve is a generally flat or undulating sedimentary landscape supporting semi-arid woodland and open forest.

Mount Kaputar National Park occupies a unique biogeographic position in NSW. Surrounded by the low-lying north-western slopes biophysical sub-region of NSW, the Nandewar Range is linked by a narrow corridor to the northern tablelands. The vegetation and animals of the park therefore exhibit both western slopes and tablelands affinities. They also exhibit an interesting overlap between northern and southern species.

The northern tablelands component of the vegetation pattern is an outlier surrounded by semi-arid plant communities. In this respect it acts as a biological island. This ecological significance is greatly enhanced because the landscape surrounding the park has been extensively cleared for agriculture. The continued existence of what remains, in as natural a state as possible to protect biological processes, is essential to the long-term conservation of important aspects of the genetic diversity in the region.

Following the separation of Australia from Antarctica, some 45 million years ago, perhaps the earliest change in the Australian flora was the differentiation of dry and moist forms of rainforest. Sclerophyll communities, which were adapting to the increasing aridity, higher incidence of fire, greater seasonality of climate and lower fertility soils, also became more widespread. Today dry forests and woodlands dominate the Australian natural landscape. The broad-leaved rainforests now only occur in fire and drought resistant refugia on the wetter parts of the eastern coast of Australia. Rainforest species do however survive in favourable niches in inland NSW and Mount Kaputar National Park contains a number of these. The park therefore demonstrates the rainforest origins of the Australian vegetation and their very wide distribution in the distant past.

The dry rainforest and sub-alpine communities of Mount Kaputar National Park represent the western and north-western geographical limits for these environments in south-eastern Australia. The sub-alpine open forest and dry heathland of the plateau area, and the box and ironbark woodlands found at lower elevations of the park are considered poorly conserved in NSW. Regionally these communities have been affected by grazing, clearing, forestry activities and altered fire regimes, resulting in widespread habitat loss and fragmentation (Porteners, 1997).

Over 600 plant species have been recorded in Mount Kaputar National Park, with seventeen listed as Rare or Threatened Australian Plants (ROTAPs). Nine plants recorded in the park are listed as threatened species under the *NSW Threatened Species Conservation Act 1995* (TSC Act). An example is *Haloragis exalata exalata*, a rare shrub that grows in damp places, which is listed as vulnerable under the TSC Act. A specimen of *H. exalata exalata* was collected in the park in 1976.

Another threatened species, the double-tail orchid *Diuris aequalis*, has been listed as an endangered species under the TSC Act. Although, *Diuris aequalis* was recorded in a park flora list compiled before 1980, it has not been recorded since.

Four species are endemic to either the park only, or both the park and the Warrumbungle Range. These include *Hibbertia kaputarensis*, *Prostanthera cruciflora*,

Eucalyptus nandewarica and *Phebalium viridiflorum*. Table 1 lists rare and threatened flora species recorded in the park.

Table 1. Threatened plant species found within Mount Kaputar National Park and listed on the ROTAP & TSC Act schedules list. (Refer Briggs and Leigh 1996, for explanation of ROTAP conservation status).

Scientific Name (Family)	Common Name	ROTAP Conservation Status*	Conservation Status (NSW TSC Act)
<i>Diuris aequalis</i> (Orchidaceae)	Double-tail Orchid	3VC-	Endangered
<i>Hibbertia kaputarensis</i> (Dilleniaceae)	Kaputar Guinea Flower	2RC-	Nil
<i>Gonocarpus longifolius</i> (Haloragaceae)		3RC-	Nil
<i>Haloragis exalata exalata</i> (Haloragaceae)		3Vca	Vulnerable
<i>Grammitis stenophylla</i> (Grammitaceae)		-----	Endangered
<i>Hakea pulvinifera</i> (Proteaceae)		2ECi	Endangered
<i>Boronia ruppii</i> (Rutaceae)		-----	Endangered
<i>Prostanthera cruciflora</i> (Lamiaceae)	Mint Bush	2RCt	Nil
<i>Eucalyptus elliptica</i> (Myrtaceae)	Bendemeer White Gum	3KC-	Nil
<i>Eucalyptus nandewarica</i> (Myrtaceae)	Mallee Red Gum	3Rca	Nil
<i>Eucalyptus rubida barbigerorum</i> (Myrtaceae)	Candlebark	3V	Vulnerable
<i>Muehlenbeckia costata</i> (Polygonaceae)		3Vca	Vulnerable
<i>Discaria pubescens</i> (Rhamnaceae)	Australian Anchor Plant	3Rca	Nil
<i>Phebalium viridiflorum</i> (Rutaceae)	Green Phebalium	3Rca	Nil
<i>Euphrasia orthocheila orthocheila</i> (Scrophulariaceae)	Yellow-flowered Euphrasia	3RC-	Nil
<i>Dodonaea rhombifolia</i> (Sapindaceae)	Hop Bush	3Rca	Nil
<i>Cadellia pentastylis</i> (Surianaceae)	Ooline	3RCa	Vulnerable
<i>Macrozamia stenomera</i> (Zamiaceae)	Burrawang	2RC-	Nil

* Conservation coding for ROTAP species:

2 = Species with a very restricted distribution in Australia and a maximum geographic range of < 100km.

3 = Species range > 100 km but in small populations restricted to highly specific and localised habitats.

K = **Poorly Known. Suspected to belong to R or V, however field distribution information inadequate**

R = Rare. May be represented by large population in restricted area, or smaller populations in larger range.

V = Vulnerable. Species at risk of disappearing from the wild over longer period through continued depletion.

C = Symbol used to indicate species is known to be represented in a National Park or reserve

a = Species considered adequately reserved with total population of more than 1000 plants.

i = Species considered inadequately reserved with total population of less than 1000 plants.

t = Indicates total known population of species occurs within conservation area.

- = Population size is unknown

In addition, the following recently published or as yet unnamed endemic species have also been recorded in the park: *Cassinia macrocephala*, *Coronidium kaputarensis*, *Asterolasia rupestris rupestris*, and a new *Bertya* sp., *Prostanthera* sp. and *Bulbine* sp. (N.C.W.Beadle Herbarium, 2005).

Over 260 species of vertebrate fauna have been recorded in the park. Twenty-four are listed under the *NSW Threatened Species Conservation Act 1995*, including three endangered and twenty-one vulnerable species. Table 2 lists threatened fauna species for the park. There are likely to be more eastern species such as the yellow-bellied glider *Petaurus australis* and bats such as *Falsistrellus* and *Scoteanax* recorded in the park when the area is better surveyed, particularly in the south-east gullies (Ellis, M. pers. comm.)

Table 2. Threatened fauna species recorded in Mount Kaputar National Park, listed on the schedules of the *Threatened Species Conservation Act, 1995*.

Scientific Name	Common Name	Conservation Status (NSW TSC Act)
Amphibians		
<i>Litoria booroolongensis</i>	Booroolong Frog	Endangered
Birds		
<i>Calyptrorhynchus banksii</i>	Red-tailed Black-Cockatoo#1	Vulnerable
<i>Certhionyx variegatus</i>	Pied Honeyeater#2	Vulnerable
<i>Climacteris picumnus victoriae</i>	Brown Treecreeper #3 (eastern subspecies)*	Vulnerable
<i>Grantiella picta</i>	Painted Honeyeater	Vulnerable
<i>Lathamus discolor</i>	Swift Parrot	Endangered
<i>Lophoictinia isura</i>	Square-tailed Kite	Vulnerable
<i>Melithreptus gularis gularis</i>	Black-chinned Honeyeater (eastern subspecies)*	Vulnerable
<i>Neophema pulchella</i>	Turquoise Parrot	Vulnerable
<i>Pomatostomus temporalis temporalis</i>	Grey-crowned Babbler (eastern subspecies)*	Vulnerable
<i>Pyrrholaemus saggitata</i>	Speckled Warbler*	Vulnerable
<i>Stagonopleura guttata</i>	Diamond Firetail*	Vulnerable
<i>Melanodryas cucullata cucullata</i>	Hooded Robin (south-eastern form)*	Vulnerable
Mammals		
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	Vulnerable
<i>Chalinolobus picatus</i>	Little Pied Bat	Vulnerable
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	Vulnerable
<i>Miniopterus australis</i>	Little Bent-wing Bat	Vulnerable
<i>Miniopterus schreibersii</i>	Common Bent-wing Bat	Vulnerable
<i>Petaurus australis</i>	Yellow-bellied Glider	Vulnerable
<i>Petaurus norfolcensis</i>	Squirrel Glider	Vulnerable
<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	Endangered
<i>Phascolarctos cinereus</i>	Koala	Vulnerable
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheathtail-bat	Vulnerable
Reptiles		
<i>Underwoodisaurus sphyrurus</i>	Border Thick-tailed Gecko	Vulnerable

#1 Although one pre-1980 record of the red-tailed black-cockatoo exists for the park, it is considered that the range and habitat is more suited to the similar looking glossy black cockatoo.

#2 This is a pre-1980 record from a compiled park list.

#3 The threatened eastern subspecies of the brown treecreeper is believed to intergrade with the arid zone subspecies in the vicinity of the park.

*Declining woodland birds (Reid 1999).

Other threatened species which occur in the region and likely to occur either within or in the vicinity of the park from time to time include:

Scientific Name	Common Name	Conservation Status (NSW TSC Act)
<i>Calyptrorhynchus lathamii</i>	Glossy Black-cockatoo	Vulnerable
<i>Xanthomyza phrygia</i>	Regent Honeyeater	Endangered

*Declining woodland birds (Reid 1999).

Of twenty woodland birds identified by Reid, (1999) as declining in the NSW sheep-wheat belt, fourteen have been recorded in the park, and the other six species have all been recorded in the region. The park provides large areas of shrubby woodland/forest habitat for many of these declining woodland birds.

Invertebrate fauna found within the park include velvet worms and the pink slug *Triboniophorus graeffei*. Also called red-triangle slugs, *T. graeffei* occur in an assortment of colour patterns throughout its range in eastern New South Wales and southeastern Queensland. The variety of this slug found in the sub-alpine area of Mount Kaputar National Park is significant for its pink colour. Given the biogeographical isolation of the park, it is likely that invertebrate surveys would reveal other endemic invertebrates of significance, for example molluscs occurring only in Semi-evergreen Vine thicket, an endangered ecological community.

2.2.5 Cultural Heritage Values

Aboriginal Heritage Value

The Nandewar Range was once occupied by Aboriginal people of the Kamilaroi nation, however the indigenous cultural significance of the mountain range and their occupation of the mountains is little understood. Only 25 sites have been recorded in the park, however a comprehensive archaeological survey has not yet been undertaken. Recorded sites include campsites, artefact scatters, marked trees, axe grinding grooves and some rock carvings.

European Heritage Value

The Nandewar Range figured prominently in a number of journals of exploration during the first half of the 1800s, but the range remained inaccessible and unsettled for much of the nineteenth century. Although the Nandewar Ranges were used as a boundary for pastoral runs during the period of grazing expansion which started in the 1840s, shepherds and stockmen managed their flocks closely as fencing wire was not available until the 1860s. Settlement began to intensify in the 1860s, but the rugged landscape of the Nandewar Ranges deterred settlers from taking up land beyond the foothills. However, by the 1900s cattle herds were grazing the mountains and grazing leases existed over parts of the ranges until the 1950s.

Twenty-four historic places are known to be in Mount Kaputar National Park. Of special interest are remnants of early pastoral use such as Scutt's Hut, the "Chinese" Fence, the Foggy Dell Woolshed and various wooden stock troughs. Oxley and

Mitchell named some of the peaks in the park, although they did not actually visit them, and the mountains were possibly a refuge for bushrangers.

2.2.6 Recreational Values

The Nandewar Ranges have long been recognised by the surrounding communities as a recreational focus. The Kaputar Plateau offers a cool refuge from the hot plains, and snow occasionally falls on the highest peaks in winter. Spectacular scenic views are available of the western plains and the Nandewar Ranges. Vantage points to the south reveal the great expanse of the Pilliga forest and the Warrumbungle Range some 150km away on the southern horizon.

By the 1880s the mountain tops had attracted the attention of locals for outdoor recreation. The Narrabri Alpine Club was formed in the 1880s and held an annual New Year excursion to some point of interest in the Nandewar Mountains. By the 1920s many local residents of Narrabri, Barraba and Boggabri were spending their Christmas vacation in the mountains.

The Nandewar Mountain League was formed in 1932 with a hike in September of that year attracting two hundred people to camp a night on the summit, followed by another hundred the following day. There was interest in the mountains for a health and tourist resort and campaigns for the protection of the mountains followed. Bushwalking, riding and climbing continued to be popular in the Kaputar plateau area and elsewhere in the Nandewar Range.

The road to the Tops was completed in 1957, and by 1962 the main network of park tracks had also been completed giving access to points of scenic and recreational interest. The Barraba Track which was completed in 1964 is currently used primarily as a fire and pest management trail, however, limited public 4WD access to the summit area of Mount Kaputar National Park is being trialed on a permit system.

Today more than 50,000 people visit Mount Kaputar National Park each year. Most visit for the scenic views, to enjoy picnics, bushwalking and camping. Smaller numbers visit to enjoy adventure activities such as rock climbing and abseiling. Although similar recreational opportunities exist 150km to the south at the Warrumbungle National Park, the public road network there is largely restricted to the valleys of the park. In contrast, visitors to Mount Kaputar National Park can access the sub-alpine area at Dawson's Spring by road and have the option of short walks to spectacular views.

Mount Kaputar National Park is promoted as an important tourist attraction for visitors to the Narrabri, Barraba, Moree and Bingara areas where tourism is of growing economic benefit to these local communities. Consequently there may be increased demand for commercial activities and other forms of recreation in future.

2.2.7 Scientific and Educational Values

The park has been used since the 1960's by the University of New England for geological and biological studies. An area of important natural and cultural heritage value as Mount Kaputar National Park has inherent potential as a scientific and educational resource.

The geological features and great variety of vegetation in Mount Kaputar National Park provide educational opportunities for visiting school groups and park visitors alike. The interpretation of unique geological features such as Sawn Rocks is aided by interpretive signs, and well formed walking trails. The park comprises an area where the biota of different regions cross over resulting in increased biodiversity. Interpretive signage on walking trails in the park assists visitors to identify plants and animals, understand ecological processes and gain an appreciation for conservation.

2.2.8 Summary Statement of Significance

The park includes outstanding examples of volcanic landforms and processes.

The park contains spectacular peaks and cliffs of the Nandewar Range which rise abruptly from the flat north-western plains and which provide a major landscape and scenic feature in the region.

The park offers panoramic views of the surrounding countryside.

The park demonstrates the evolution of Australian vegetation including rainforest, sub-alpine and sclerophyll elements.

The park demonstrates a large range of vegetation zones in response to increasing altitude.

The park includes large areas of both semi-arid north-west slopes vegetation and cool highland communities typical of the northern tablelands.

The park includes significant flora and fauna at their limits of geographical distribution, and provides habitat for threatened species in the area.

The park is one of only three large conservation areas in the north-west slopes biophysical region of NSW.

The park is a large biogeographical island largely surrounded by cleared agricultural land.

Mount Kaputar National Park has extensive areas of undisturbed wilderness.

The park contains sites which reflect changing cultural and land use patterns, from Aboriginal occupation through to the pastoral era.

The park illustrates the importance of the Nandewar Range as a recreation resource for the past 100 years and demonstrates how recreation philosophy and practice have changed during this time.

The park offers opportunities for car based recreation in a natural setting.

The park offers opportunities for solitude and self-reliant recreation in a wilderness setting.

3. OBJECTIVES OF MANAGEMENT

In addition to the general objectives for the management of national parks (refer section 2.2, page 2), the management of Mount Kaputar National Park will be subject to the following specific objectives:

- * protection of Mount Kaputar National Park as a representative example of the Nandewar biogeographical region and as a sample of north-western slopes vegetation and as an outlier of northern tablelands vegetation communities;
- * protection of sub-alpine communities and relict rainforest elements;
- * provision of interpretation at strategic sites promoting the values of the park, alerting visitors to threats to park values, encouraging visitors to adopt a minimal impact ethic in natural areas, providing a broader understanding of national parks and conservation, and assisting visitor enjoyment of the park;
- * provision and maintenance of a high standard of walking trails, day use areas and existing camping facilities on the Kaputar Plateau, at Sawn Rocks and Waa Gorge; and
- * protection and where necessary restoration of the Grattai, Nandewar and Rusden wilderness areas.

4. POLICIES AND FRAMEWORK FOR MANAGEMENT

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

4.1 NATURE CONSERVATION

4.2 CULTURAL HERITAGE

4.3 USE OF THE AREA

Natural and cultural heritage and on-going use are presented individually for convenience and clarity. In practice, however, they 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, and the presence of introduced plants and animals.

Where not specifically provided for in this plan, management of Mount Kaputar National Park will be in accordance with the National Parks and Wildlife Act and with general Service policies.

4.1 Nature Conservation

Nature conservation covers all aspects of the natural environment including geology and soils, water quality, native plants and animals and the relationship between these. For convenience, management of landscape values, introduced species and fire are also considered in this section.

4.1.1 Geology, Landform, Soils and Water Quality

The extensive lava shield of the Nandewar Range is up to 700 metres thick but has in places been deeply eroded, exposing older sandstone and conglomerates rocks in watercourses such as the Boomi, Bullawa and Rocky Creeks. The rocks of the Kaputar Plateau are mainly of Tertiary basalt, rhyolite and trachyte. Erosion of the softer basalt rock has exposed the harder plugs, dykes and sills that dominate the landscape of the park today. The degree of dissection in the landscape varies considerably. In some areas, broad amphitheatre valleys with alluvial floors extend well back into the range. Elsewhere the streams flow down narrow V-shaped valleys or canyons.

The soils of the park are generally of basalt-based brown earths with sandstone intrusions producing lighter, shallow, sandy and gravelly soils. The soils of the exposed lava rock platforms, plateaus and peaks tend to be of sandy texture and poor in nutrients. Soils formed from trachyte and basalt are generally regarded as being highly susceptible to erosion. Erosion resulting from vehicle traffic along roads, car parks and fire trails, and foot traffic on walking trails and through camping sites

and picnic areas is a potential problem in the park. Gully erosion in the Horton River area and adjacent to Bullawa Creek around Foggy Dell is a legacy of past land use.

Although the park receives relatively high annual rainfall, the separate catchment areas of the park are comparatively small. Hence large streams originating in the park such as the Bullawa Creek and the Horton River are often dry for extended periods. As there also are no streams flowing into the park from outside, permanent water sources such as Dawson's Spring and Kurrawonga Falls are significant for their rarity in the park. These waters are relatively unaffected by development or disturbance to landforms, soils or vegetation cover.

Catchment management provides an 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 and development, and encourages a more aware and involved community. An important means of achieving these aims is the formation and support of Catchment Management Authorities (CMAs) at a regional level under the *Catchment Management Authorities Act 2003*. Local CMAs include the Gwydir CMA and Namoi CMA.

Policies

- * Erosion is recognised as a naturally occurring process in the national park. Where erosion has been accelerated by human activity or is threatening significant habitats or other values, appropriate control measures will be undertaken.
- * All land management and development within the Mount Kaputar National Park will incorporate effective soil erosion and sedimentation control principles and practices.
- * Effluent will be disposed of according to Australian Standards.
- * The Service will continue to support the principles of catchment management and will liaise with local government and other authorities to maintain and improve the water quality of catchments.

Actions

- * Areas of erosion on management trails and walking trails in the park will be monitored, and control measures undertaken where erosion has been accelerated by human activity or is threatening significant habitats or other values.
- * Undertake coliform and *E. coli* monitoring of the water supplies at 3 month intervals to assess whether the catchments are being affected by pollution. Remedial action will be undertaken if necessary.

4.1.2 Native Vegetation

The vegetation of Mount Kaputar National Park is significant for the transition of form and associations from the plains communities on the lower western foothills through well developed open forest to heath and stunted woodland on the summits. The park also provides an interesting overlap between northern and southern species. For example, ribbon gum (*Eucalyptus viminalis*), candlebark gum (*E. rubida*), apple box (*E. bridgesiana*), mountain grey gum (*E. cypellocarpa*) and snow gum (*E. pauciflora*) are southern species of eucalypt at their approximate northwestern limit. Northern species at their southwestern limit include orange gum (*E. bancroftii*), a mountain gum (*E. dalrympleana* spp. *heptantha*) and Youmans stringybark (*E. youmanii*). Wet sclerophyll forest has developed in lower altitude sheltered valleys east of Mount Kaputar. Species include silvertop stringybark (*E. laevopinea*), ribbon gum (*E. viminalis*) and mountain gum in conjunction with a dense understorey of tree ferns.

Two vegetation types found in the park are particularly important: Sub-Alpine communities and Rainforest communities.

Six distinct sub-alpine communities have been identified and cover an area of approximately 600 hectares, which during the winter months occasionally experience snowfalls and severe frosts. Communities include open forest with trees reaching 20-30 metres in height consisting of mountain gum (*Eucalyptus dalrympleana*), snow gum (*Eucalyptus pauciflora*) and snow grass (*Poa sieberana*) on higher elevation slopes and flats such as around Dawson's Spring. Heathland and open herbfields occur in exposed areas with thin soils such as Eckford's Lookout. Wet heathlands are uncommon in the park and are very susceptible to disturbances such as fire, grazing and trampling.

Small patches of rainforest occur in the deeper valleys in the park but are very limited in extent. These dry rainforest communities occur in isolated patches in rocky riparian sheltered areas such as Horsearm Creek, Eulah Creek and Waa Gorge. The rainforest is characterised by a continuous canopy and a scarcity of shrubs, but ferns, dense vines and orchids are abundant. Many of the species occur at their western geographical limit in Mount Kaputar National Park. For example some of the more surprising rainforest species in the park include the giant stinging tree (*Dendrocnide exelsa*), cheese tree (*Glochidion ferdinandi*), bleeding heart tree (*Omalthus populifolius*), brush bloodwood (*Baloghia inophylla*), small-leaved lilly pilly (*Acmena smithii* var. *minor*), *Podocarpus spinulosus*, and holly-leaved birds-eye (*Alectryon subdentatus*).

Over 600 plant species have been recorded in Mount Kaputar National Park. Seventeen rare or threatened plant species (ROTAP), classified as nationally significant by Briggs and Leigh (1996) have been recorded in the park. While there is no legislative obligation associated with this classification, the NPWS recognises that ROTAP species have high conservation significance, which warrant specific management considerations to ensure their protection.

Nine species recorded in the park are listed as threatened (four endangered, five vulnerable) under the *Threatened Species Conservation Act 1995* (TSC Act), including the vulnerable *Haloragis exalata exalata*, a medium sized shrub of which a specimen was collected on the western slopes of the park in the 1970s. Under the

TSC Act a recovery plan must be prepared for threatened species to ensure that any threatening processes that may cause extinction of these species is controlled, reduced or removed. At the time of writing this plan of management, recovery plans are yet to be prepared for threatened plant species occurring in the park.

Mapping and survey of park vegetation is essential to provide a basic resource inventory of vegetation communities upon which park management depends. Although vegetation surveys have been completed for the entire park, these surveys are considered to be a sample, or snapshot in time, of a changing and dynamic ecosystem. Ongoing floristic studies are essential to continue monitoring this ecological change.

Formerly cleared areas adjacent to Bullawa Creek around Foggy Dell, Beresford Park, Carinya, the Horton River Valley and in the Ningadoo Valley are a legacy of past land use. The monitoring and rehabilitation of these areas will be addressed in a revegetation plan.

Policies

- * Native vegetation will be managed to:
 - maintain floristic and structural diversity;
 - conserve threatened or uncommon communities and species;
 - encourage regeneration of areas previously cleared or grazed; and
 - maximise habitat values for native animal species.
- * Areas of degraded vegetation, old tracks or previously cleared areas not needed for recreation or management purposes will be rehabilitated.
- * Only plant species endemic to Mount Kaputar National Park will be used in revegetation work. As far as possible plant material will be propagated from communities within the area to be treated.
- * Research into the abundance, distribution and management needs of rare and threatened plant species and communities shall be encouraged and supported. Information gained shall be utilised in any works undertaken, particularly fire and pest management.

Actions

- * Recovery plans for threatened species occurring within the park shall be implemented.
- * A revegetation strategy will be drawn up and implemented to address erosion and the rehabilitation of cleared areas and to provide adequate and / or enhanced habitat values for threatened and non-threatened species in the Upper Bullawa Creek, Ningadoo, Beresford Park, Carinya and Upper Horton areas of the park.
- * Members of the local community will be encouraged to become involved in revegetation programs in the park.

4.1.3 Native Animals

The range of habitats within the park supports a variety of native animals. Over 260 species of vertebrate fauna have been recorded, including 187 native bird species, 46 reptile species and 34 native mammal species. Invertebrates such as the pink slug *Triboniophorus graeffei* and velvet worms occur in the sub-alpine region of the park. Given the biogeographical isolation of the park, targeted surveys are likely to discover more endemic invertebrates of significance. Current species lists have been compiled from work undertaken by the Australian Museum, CSIRO, NPWS personnel and interested zoologists.

The park is considered significant for its large population of the greater glider (*Petauroides volans*) which rely on the old tree hollows in the large eucalypt forests. The yellow-footed antechinus (*Antechinus flavipes*) and common dunnart (*Sminthopsis murina*) are the only small terrestrial native mammal species recorded in the park. This may be due either to insufficient investigation of this group, or low numbers and local extinction of these species due to predation, or a combination of both.

Twenty-four fauna species listed under *the NSW Threatened Species Conservation Act 1995* have been recorded in the park, including three endangered and twenty-one vulnerable species. Table 2 lists threatened species recorded in the park.

The vegetation communities of the park offer valuable habitat for declining woodland birds in the region. The status of these populations in the park and knowledge of their reliance upon food and habitat resources in the park may provide valuable information to assist in the protection of these birds in the region.

The endangered swift parrot (*Lathamus discolor*) has been recorded in the park. It is an infrequent migrating visitor to western NSW and the clearing of food trees is considered a major threat to this species. The endangered booroolong frog (*Litoria booroolongensis*) and vulnerable brush-tailed rock wallaby (*Petrogale penicillata*) were recorded in the past but only the rock wallaby has been observed recently, in refugia habitat toward the southern end of the park. Recent additions to the threatened species list for the park include the squirrel glider (*Petaurus norfolcensis*), the large-eared pied bat (*Chalinolobus dwyeri*), and the border thick-tailed gecko (*Underwoodisaurus sphyrurus*). The park is also known to provide important refuge for large numbers of vulnerable bent-wing bats (*Miniopterus schreibersii* and *M. australis*). Major threats to bent-wing bats include disturbance during hibernation over winter.

Policies

- * The diversity and high quality of habitats for native animals occurring in the national park will be conserved.
- * Priority will be given to management strategies or programs that favour conservation of threatened species. However, as far as possible programs will be designed to conserve the full range of native animal species in the park.

- * Research and monitoring shall be encouraged into the status, distribution and management needs of animal species within the park, with greatest priority given to threatened species and declining woodland birds.

Actions

- * Management recommendations outlined in threatened species recovery plans shall be implemented.
- * Interpretive signs will be erected to discourage visitors from entering caves and disturbing the vulnerable bent-wing bats particularly during the hibernation period.
- * Surveys will be carried out to establish the presence and distribution status of woodland bird populations in the park
- * Surveys and monitoring will be conducted to ascertain the presence, abundance and distribution of vertebrate and invertebrate fauna species in the park, particularly threatened species.

4.1.4 Wilderness

In 1982 over 30,000ha of Mount Kaputar National Park was declared as wilderness under Section 59(1) of the *National Parks and Wildlife Act 1974*. There are three wilderness areas: Grattai (4,300ha) in the northern section of the park, Nandewar (13,300ha) in the central area, and Rusden (12,700ha) in the south. Together they cover over 75% of the national park. These areas were subsequently gazetted as wilderness areas in 1992 under the *Wilderness Act 1987*.

Despite earlier low-intensity grazing and logging, the wilderness areas are largely unmodified and no major rehabilitation works are required. Permanent management tracks (mostly peripheral) have been stabilised to prevent erosion. Temporary trails, if required in an emergency, will be restored as soon as practicable using appropriate soil erosion control methods and allowing natural regeneration of these trails

In 2001/02 a wilderness assessment was completed for areas nominated within and surrounding the park. The draft wilderness report recommended that approximately 3,222 hectares in the Bullawa Creek area and surrounding the Barraba Track, and an area identified at the northern end of Carinya, be declared under section 8 of the *Wilderness Act 1987* and section 59 of the *National Parks and Wildlife Act 1974*. Should these new declarations occur they will be incorporated as additions to the Rusden and Nandewar Wilderness Areas. As there are no public facilities in these areas, it is considered that these declarations will have little impact on existing management. Wilderness areas and proposed wilderness additions are shown on Maps 1 and 2.

Wilderness is managed in accordance with the Wilderness Act and the Service policies to:

- restore and protect the relatively unmodified state of the area and its plant and animal communities, while managing cultural heritage in a manner appropriate to its significance;
- 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.

Inherent in these objectives is the principle that protection of natural values has priority over providing for recreational use of wilderness areas. The wilderness areas of the park are believed to be used by only small numbers of bushwalkers. The combined actions of visitors accessing these wilderness areas is not believed to have significant impact on their wilderness value at present.

Management of natural and cultural heritage, introduced species, and fire is carried out in the wilderness areas in the same manner as other parts of the park, in accordance with the policies set out in other sections of this plan.

Policies

- * The Grattai Wilderness, the Nandewar Wilderness and the Rusden Wilderness will be maintained in a wilderness condition and be managed as largely unmodified areas with minimal human impact which provides opportunities for solitude and self-reliant recreation.
- * No permanent structures will be erected within wilderness areas.
- * No public vehicular access will be provided in wilderness areas.
- * No additional walking tracks will be developed in wilderness areas.
- * Bushwalkers in wilderness areas will be expected to adopt minimal impact bushwalking principles.

4.1.5 Fire Management

Fire is considered a natural feature of the Australian landscape and is an important factor in influencing the distribution of plant and animal communities. It is also essential to the survival of some plant communities. Frequent or regular fire however, can cause loss of particular plant and animal species and communities. Fire and related suppression activities can also damage Aboriginal sites, historic sites and recreation facilities and threaten visitors and neighbouring property.

Management of fire in the national park is an important and complex issue. Management must aim to achieve both long-term conservation of native plant and animal communities and ongoing protection of life and property within and adjacent to the national park.

Fire history

Fire within Mount Kaputar National Park occurs as a function of both fuel levels and weather conditions. Fuel levels in vegetation communities within the park build up gradually over a number of years. Severe fire conditions occur when the summer rains fail to eventuate and lightning strikes occur from dry storms.

The pre-European fire history of the national park is not known. Traditional fire practices of Aboriginal people in NSW have not been well researched and are therefore poorly understood. Aborigines are likely, however, to have had burning regimes which encouraged grazing plants in areas in which they hunted, and kept corridors open in lands they travelled through. From research conducted elsewhere it appears likely that the current timing, frequency and intensity of fire now is different from traditional Aboriginal burning practices.

Although recorded fire history in the national park dates back to 1937, fire records prior to 1982 are incomplete and include anecdotal reports. Records for the 1980s and 1990s in the park show a low incidence of fires, with most years recording just one fire. Of the fires recorded, areas burnt are generally minimal, the majority less than 1,000ha. Five major fire events each exceeding 10,000ha are recorded for the years 1937, 1951, 1957, 1974 and 1986. These larger fires were of low to moderate intensity, creeping through rugged terrain for several weeks before being extinguished by rain. Most of the recorded fires have been the result of lightning strikes during the warmest months of the year.

Ecological requirements

Fire frequency, intensity and seasonal timing are major factors influencing the distribution and composition of plant and animal communities. Ecological research in fire prone ecosystems has established broad principles about fire regimes needed to avoid extinction of species:

- groups of plant and animal species respond similarly to fire according to the characteristics of their life-history. It is not necessary to specify fire regimes for the conservation of every species; rather fire regimes for groups of species or an ecosystem should be developed;
- a diversity of fire regimes is needed to maintain natural diversity. Management of fire should aim to provide a pattern of fires of high, moderate and low intensity, frequency and extent. Extinctions are most likely when fire regimes of relatively fixed intensity, frequency and extent prevail without variation.

Although scientific understanding of the fire requirements for animal communities is generally not as advanced as for plant communities, recent research has demonstrated that the conservation of many animal species depends upon a mix of fire regimes including occasional high intensity fires. Despite this, the use of regular low intensity fires has an unacceptable impact on critical habitat requirements for native animals, particularly on ground flora and undergrowth, and high intensity fires can have an equally devastating impact.

Fire management aims to maintain diversity by restricting planned and, if possible, unplanned fires to only a part of the distribution of a vegetation type within the national park at any one time. This approach will ultimately result in a mosaic of age classes for each of the vegetation types of the national park.

Strategies and co-operative arrangements

A variety of fire management strategies have been developed including fuel reduction, fire trail maintenance, detection and cooperative arrangements. Some, or at times, all of these are applied where appropriate to protect life, property and natural and cultural assets within, and adjacent, to the park. In particular, close to boundary areas, fuel reduction programs and fire trail maintenance programs will be designed and implemented in cooperation with neighbours.

In accordance with the Service wide program on fire management planning, an approved fire management plan has been prepared for the park. This plan identifies the bushfire threat and ecological requirements for the conservation of native plants and animals and provides the basis for management strategies and prescriptions. The plan also establishes community protection measures in areas where it is identified that fire is a threat to property.

Under the *Rural Fires Act 1997* the Service is a statutory fire authority and is responsible for controlling fires on all Service estate. An important part of the Service's fire management is participation in local co-operative fire management arrangements. With respect to Mount Kaputar National Park, the Service is a member of State, Regional and Local Bush Fire Management Committees, which aim to coordinate, fire management and fire control on a shire basis.

Although not a problem if fires are of low intensity, fire suppression is a difficult and complex undertaking in Mount Kaputar National Park due to the rugged terrain. Hazard reduction will be undertaken where necessary around park facilities and on park boundaries. Bushfire suppression operations may require the construction of temporary trails, helipads and fire breaks.

Policies

- * Fire will be managed in accordance with statutory obligations. A fire management plan has been prepared for the park incorporating the principles below to ensure:
 - protection of human life and property within and adjacent to the national park;
 - conservation of rare, threatened and biogeographically significant plant and animal species and communities;
 - maintenance of plant and animal species and communities through the provision of fire regimes compatible with their conservation;
 - protection of Aboriginal sites, historic places, visitor facilities and management structures.
- * Prescribed burning will take into account current research into the most appropriate fire regimes for each vegetation community.
- * Prescribed burning may be undertaken to produce habitat suitable for species with specific requirements. Prior to any such burning an assessment of vegetation characteristics and the status of key species in the area will be undertaken to determine the need for fire and its likely ecological effect.

- * The use of heavy machinery will be avoided in areas with rare plants, Aboriginal sites, historic places, wet areas and heathland.
- * Areas disturbed by fire suppression operations will be rehabilitated as soon as practical after the fire.
- * Research will be encouraged into the ecological effects of fire in the national park, particularly the fire response of rare and threatened plant species.
- * The Service will continue to actively participate in regional and local Bush Fire Management Committees. Close contact and cooperation will be maintained with Fire Control Officers and neighbouring Rural Fire Service brigades.
- * As far as possible fuel management will be carried out in co-operation with neighbours for mutual protection.
- * The national park may be closed or access restricted to public use during periods of extreme fire danger and/or prescribed burning activities.

Actions

- * The Mount Kaputar National Park Fire Management Plan will be implemented.
- * The implementation will ensure life, property and natural and cultural resource protection principles, strategies and programs, co-operative arrangements and fire trail network requirements are met.
- * Annual fire operations plans will be prepared detailing fuel reduction burns and trail maintenance requirements in accordance with the policies outlined above and the fire management plan.
- * The current fire trail system will be maintained.
- * Any new trails resulting from fire suppression operations will be rehabilitated as soon as practical after the fire.
- * Prescribed burning and unplanned fires will be excluded as far as possible from the following communities except where fire is required to protect facilities or to achieve specific resource management objectives:
 - cliff-edges and escarpment communities;
 - gullies containing closed forest communities;
 - the habitat or any fire-sensitive rare or endangered species; and
 - around fire-sensitive cultural resources.
- * Research into fire behaviour and the impact of fire on park ecosystems will be encouraged.

4.1.6 Introduced Plants and Animals

An introduced species is defined in this plan as any plant or animal species not native to the national park. Introduced species within the national park and on adjoining land are of concern because they have the potential to have detrimental effects on ecological values and can spread to and from neighbouring land.

A pest management strategy and a regional pest operations plan have been prepared and are updated annually. The objectives of the strategy are to:

- * Conserve biodiversity;
- * Manage pest populations to minimise their movement from and onto Service estate;
- * Satisfy legislative responsibilities;
- * Support a cooperative approach to pest management with other agencies and the community; and
- * Foster community support for pest management programs in Mount Kaputar National Park.

Introduced Plants

The *Noxious Weeds Act 1993* places an obligation upon public authorities to control noxious weeds on land that they occupy to the extent necessary to prevent such weeds spreading to adjoining lands. Noxious weeds occurring in the park which are currently given a high priority for control include green cestrum (*Cestrum parqui*), sweet briar (*Rosa rubiginosa*), and golden dodder (*Cuscuta campestris*). Other noxious weed species occurring in the park include prickly pear (*Opuntia stricta*), Bathurst burr (*Xanthium spinosum*), noogoora burr (*Xanthium occidentale*), blackberry (*Rubus fruticosus*), saffron thistle (*Carthamus lanatus*) and mother of millions (*Bryophyllum delagoense*). Control priorities are reviewed annually, and infestations will be controlled and where possible eradicated.

Introduced Animals

Introduced animal species have detrimental impacts on the conservation values of the national park. Obvious evidence of their impact such as damage to sub-alpine vegetation and soils by pigs is in contrast to the less obvious impacts of predators such as foxes and cats. Pigs may also interfere directly with native species such as the ground-nesting brush-turkey. Feral goats compete with native animals for shelter and food and may be pushing fauna such as the brush-tailed rock wallaby towards local extinction. Introduced animals also have potential to spread exotic diseases to both native and domestic livestock on adjacent properties.

Introduced animals occurring in the park, which are currently given a high priority for control include goats, pigs, and foxes. Other introduced animals observed in the park include cats, rabbits, black rats and house mice. Of the known pest species, goats, pigs and foxes are currently actively controlled. Control methods currently employed include aerial shooting of goats, pig trapping, and fox baiting. The effectiveness of aerial culling of goats and pig trapping is being increased through the use of radio tracking technology.

European honeybees also occur in the park and may compete with native animals for food and shelter, particularly native bees, honeyeaters and small mammals. They may impact on native flora increasing hybridisation between species. Eleven licensed apiary sites currently exist in the park, located near Killarney Gap, Foggy Dell, and Ningadoo. The Service policy on beekeeping allows existing sites to continue, but does not allow any new or additional sites to be created.

Policies

- * Introduced plant species will be controlled and if possible eradicated. Priority for treatment will be given to those which:
 - have been declared noxious;
 - threaten the integrity of native communities;
 - may affect neighbouring lands;
 - have a high capacity for dispersal; and/or
 - are new isolated occurrences.
- * Feral animal and weed control will be carried out in accordance with Service policy and with the co-operation wherever possible of Rural Lands Protection Boards and neighbours of the park.
- * Control programs will be designed to avoid impact on non-target species.
- * Pest control methods will be continually monitored and new methods trialed to improve efficiency and effectiveness of pest control strategies.
- * Licensed apiarists shall continue to be permitted to use the Foggy Dell and Ningadoo management trails to access their hive sites. Management of existing apiary sites in the park shall be consistent with current NPWS policy.

Actions

- * Known occurrences of noxious weeds will be treated. Specific annual priorities for control programs within Mount Kaputar National Park will be identified in the Northern Plains Region (NPR) Pest Management Strategy and the NPR Pest Operations Plan.
- * Pest Control Strategies and Plans will be updated annually.
- * Encourage maintenance of effective fencing of boundaries with neighbouring properties to prevent domestic stock from entering the park. Provide fencing assistance where possible and appropriate under the Service's Boundary Fencing Assistance Policy.

4.2 Cultural Heritage

Cultural heritage includes both Aboriginal and non-Aboriginal history and associated activities and works. It comprises important sites, structures and relics that may have

aesthetic, historic, scientific, spiritual and social significance to present and future generations.

4.2.1 Aboriginal Heritage

Present indications are that utilisation of the Nandewar Ranges by Aboriginal people has been limited to seasonal spring and summer usage. This is hardly surprising given the extreme climatic conditions that can be experienced at altitude. Nevertheless the current sites are known to occur in a wide range of micro-environments and at all elevations suggesting widespread usage of the area.

There is clear evidence that the volcanic nature of the Nandewar Ranges has provided a ready source of material for the production of ground edge axes. Similarly, that the presence of chalcedony nodules as floaters in the topsoil of the lower slopes has constituted a major resource zone for good quality knapping material.

At the time of European contact, the Kamilaroi Aboriginal people occupied an extensive territory including the areas of the Barwon, Gwydir, MacIntyre and Namoi Rivers as well as the Nandewar Range. Relatively predictable waters within the Nandewar Range such as Bullawa Creek, Horsearm Creek and the Upper Horton River may have been important resources for Aboriginal groups in the area.

Although several topographical features of the park retain Aboriginal names, most of their meanings are unknown. The retention of Aboriginal names suggests that the early European explorers and surveyors utilised the knowledge of local Aboriginal people.

A shared history between Aboriginal and non-aboriginal people in the Nandewar area commenced in the early part of the 19th century. John Oxley's inland expedition reached the Warrumbungle's in 1818 from which the first European record of the Nandewar Range was made. In 1826, botanist Alan Cunningham found a way through the ranges from Newcastle by utilising an Aboriginal trade route that extended northwards up to Gunnedah and Moree. This route would have almost certainly led them through the Nandewar area. He also travelled close to the current eastern boundary of the park on his return journey from the Darling Downs in Queensland in 1829.

Although the involvement of Aboriginal people in the early expeditions and the subsequent development of grazing and forestry industries in areas surrounding the Nandewar Range is poorly understood, it is likely that their skills and knowledge were of great importance to the survival of early European explorers and settlers. Further research may reveal a wider shared history of place between Aboriginal and non-aboriginal people during the early years of European settlement.

The strong attachment of Aboriginal people to the land is acknowledged. Archaeological sites are important to Aboriginal communities, as they are a testament to their culture's great antiquity. Aboriginal people may also have traditional spiritual links with an area and hold knowledge that is important for nature conservation. Within the Aboriginal community, organisations including, but not limited to, Native Title Claimants and Holders, Elders Groups and Aboriginal Lands Councils may have members who are knowledge holders (ie people who have information concerning

cultural issues and items). There is a need to notify and encourage these organisations to become involved in consultation processes occurring in their area of operation. Currently the park falls within the areas of the Narrabri Local Aboriginal Land Council, the Anaiwan Local Aboriginal Lands Council and the Moree Local Aboriginal Lands Council.

While the Service presently has legal responsibility for the protection of Aboriginal sites it acknowledges the right of Aboriginal people to make decisions about their own heritage. It is therefore policy that all relevant parties should be notified of, and included in, the consultations that occur in their area of operation, however the decision whether to participate will be made by the individual or organisation. Aboriginal communities will be consulted about decisions regarding the management of Aboriginal sites and related issues and how the Aboriginal culture and history of an area controlled by the Service will be promoted and presented.

Twenty-five Aboriginal sites have been recorded in the park, however a comprehensive archaeological survey has not been undertaken. Research has revealed a campsite located near Dawson's Spring and a marked tree and rock carvings at Bullawa Creek. Artefacts (flakes, chips, cores) have been located on Mount Grattai, along a creek line on Beresford Park and near the boundary of the park in Deriah State Forest. Other recorded sites include a campsite near Killarney Gap, a possible stone arrangement on the Kaputar Plateau, a midden on Spring Creek, an extensive campsite near Waa Gorge and ground edge axe sharpening grooves on Carinya. The development of an Aboriginal heritage survey strategy to guide further survey and research in the park has been included in this plan. Results from surveys will add to the cultural knowledge base for the park, improve management of cultural sites and provide increased promotional and interpretive material.

Policies

- * Aboriginal sites will be protected from disturbance or damage by human activities.
- * All works with the potential to impact on Aboriginal sites will be preceded by an archaeological assessment.
- * The NPWS will consult all relevant and interested parties in the identification, assessment and management of their cultural heritage. Narrabri Local Aboriginal Land Council and other Aboriginal community organisations will be actively encouraged to become involved in the management of Aboriginal sites and other values in the national park.
- * Cultural heritage information provided to the NPWS remains the property of the individual or community providing the information, in that the individual or community can dictate the collection method, storage of, access to, and use of the information.

Actions

- * An Aboriginal heritage survey strategy will be developed for the park.
- * Aboriginal sites will be monitored in consultation with local aboriginal people to identify threatening processes and site protection works will be implemented as necessary.
- * All works will be preceded by a review of environmental factors to determine any impacts on cultural heritage sites.

4.2.2 Non-Aboriginal History

Fourteen historic places and seven historical geodetic stations have been recorded in Mount Kaputar National Park. Of special interest are Scutt's Hut, the "Chinese Fence", the Foggy Dell Woolshed, and various wooden stock troughs. In addition to these several other sites exist on Beresford Park and Carinya, including a slab hut and a settlers cottage.

The "Chinese Fence" is the local name given to a reasonably well preserved example of a dingo and wildlife management barrier. Estimates of the date of construction of the fence vary from the 1880s, as reported by members of the local community, to a recent archaeological assessment suggesting that it may not have been built until the 1920s. It is hoped that further research will clarify its period of construction. The fence demonstrates the techniques of 'vermin-proof' fence construction when such work had to be done by hand. The form of the fence is considered to be rare in the region and of local archaeological significance. It is recommended that additional survey and research work on the fence is undertaken, and a sample of the fence be conserved and interpreted to the public (Gojak 2000).

Foggy Dell is an example of a small-scale farming enterprise and is significant for its association with the pioneering days of settlement in the area. The woolshed was built in the 1930s and is considered to be of primary significance at the site as it retains most of its original elements. A Conservation Plan for Foggy Dell (2002) proposes conservation of the woolshed, and removal of the residence.

Scutt's Hut is located in the Rusden Wilderness Area in the southern portion of the park. Lying adjacent to Horsearm Creek, it was built in the 1940s following the granting of an improvement lease. It demonstrates a local farming enterprise in a remote area centred on wool production. Abandoned in 1955, the site consists of a hut, hay shed, fence lines, and cattle yards. A draft Conservation Plan prepared for Scutt's Hut (1996) recommended the preservation and maintenance of the Scutt's Hut site in its entirety including the prohibition of camping in or within 20 metres of the hut and hayshed. It also recommends installing interpretive signs and providing a brochure at the site.

Although not a listed site, the Barraba Track is considered important by the Barraba community. Construction of the track was commenced in the 1930s, during the Great Depression, by Barraba rural work gangs transported into the mountains by butchers carts supplied by C R Hancock and Sons. Work was progressing well until World War

It broke out halting construction. In 1964 a group from the Barraba community completed the track. In excess of 2,000 man hours of voluntary labour was expended in the construction and completion of the Barraba Track by Barraba residents. Its value is derived from the fact that present residents of the Barraba community associate the track with the early pioneering days of their ancestors.

Policies

- * All historic sites will be recorded, protected and assessed for significance.
- * Conservation of historic sites will be in accordance with conservation plans or assessments, and according to the Regional Cultural Heritage Strategy.

Actions

- * Signs will be erected to interpret the past use of the Bark Hut logging area to the public and to outline restrictions on camping in the area.
- * Signs will be erected at a suitable location on the Barraba Track to interpret the history of the area, for example at Brushy Mountain picnic area.
- * A section of the “Chinese fence” will be conserved and interpreted to the public.
- * Further surveys and archaeological assessment of the “Chinese Fence” and other internal fences of the park will be undertaken.
- * Conservation guidelines will be prepared for the Ningadoo Woolshed.
- * The Conservation Plan for Foggy Dell will be implemented.
- * Local historical societies will be consulted regarding the location and protection of historic sites within the park.
- * Historic remains found in the park will be assessed for their significance to determine priorities for conservation planning, and conservation guidelines prepared where appropriate.

4.3 Use of the Area

Certain public and private uses may be appropriate in Service areas provided that they do not conflict with the primary purpose of conservation of natural and cultural heritage and are consistent with the objectives and strategy of the plan of management. The major categories of use that can be appropriate in Service areas are:

- education and promotion of the area, the Service and the conservation of natural and cultural resources;
- involvement of the public in aspects of management;
- certain types of recreation;
- Aboriginal cultural activities;

- research; and
- management operations by the Service and other authorities with statutory responsibilities in the area.

The extent to which these categories of use will be provided for in Mount Kaputar National Park is indicated below.

4.3.1 Promotion and Interpretation

Park facilities provide opportunities to enjoy, appreciate and understand the value of our natural and cultural heritage. Only areas that can sustain use without degrading the natural and cultural heritage values of the park are to be promoted. The provision of information assists the protection of natural and cultural heritage, promotes support for conservation and increases the enjoyment and satisfaction of visitors.

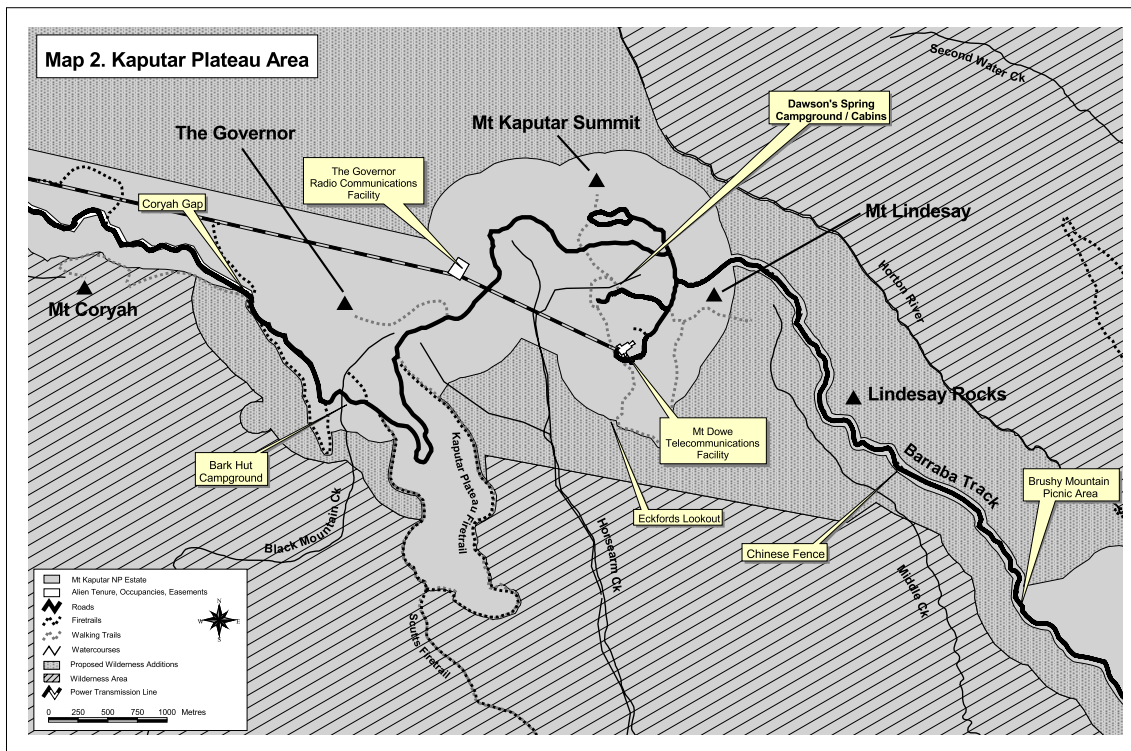
The park has a number of natural and cultural features of interest to visitors, primarily the lookouts and walking trails in the sub-alpine area, and the spectacular geomorphology at Sawn Rocks. These features will be promoted and interpreted to visitors in a manner that protects their special values and encourages appropriate use as outlined below. Provision of facilities such as picnic areas, camping areas and walking tracks in those locations which can sustain such use is discussed in the following sections of the plan.

Policies

- * Understanding and appreciation of the natural and cultural values of the national park by the public will be promoted. The following themes will be emphasised in interpretation programs:
 - Geology and geomorphology of the park, and its volcanic origins;
 - Biodiversity and threatened species;
 - The threats to declining woodland birds; and
 - Aboriginal, early settlers and pastoral history.
- * Promotional material and interpretive programs will be designed to promote care for the environment and foster an appreciation of natural and cultural heritage values, native vegetation, threatened species and Aboriginal and historic artefacts and sites.

Actions

- * Interpretative information on the geological features, biodiversity, threatened species, declining woodland birds and Aboriginal, early settlers and pastoral history will be installed at strategic locations.
- * The Interpretative Prospectus for the park (Fox, 1988) will be reviewed and an interpretation and signage strategy will be prepared for implementation. Information and regulatory signage in the park will be consistent with this strategy.



4.3.2 Recreation Opportunities

Visitor opportunities provided in national parks are generally in natural and undeveloped settings. Recreational uses which are ecologically sustainable and which directly contribute to the visitor's understanding and appreciation of the park are considered appropriate.

To ensure that visitor use is ecologically sustainable, the Service may place limits on the number of access points, and design facilities to ensure that numbers of visitors and the style of use are appropriate for specific areas. Monitoring of visitor numbers and the impact of visitors on the environment and park infrastructure is desirable.

Promotion of recreational opportunities will encourage minimal impact use of the park. The provisions below are designed to maintain the low key, scenic, natural settings which are special features of the park and to provide for future use in a manner which protects ecological integrity and cultural heritage values.

4.3.3 Vehicle Access

Vehicular access to the central section of the park is limited to the Mountain Road from Narrabri, which is maintained by the Narrabri Shire Council up to Coryah Gap. The remaining section of road to Dawson's Spring is maintained by the Service.

Public access to features in the northern part of the park is by the Narrabri-Bingara Road (Shire maintained) which passes through Killarney Gap. Additionally a public road passes through a number of neighbouring properties to access the Waa Gorge area of the park.

Mount Kaputar Summit Road

This short section of unsealed road to the Mount Kaputar summit is steep and suffers from poor drainage and erosion of the loose road surface. Erosion and sedimentation is causing environmental impacts on the surrounding sub-alpine woodland community, and increasing traffic on this road will escalate these impacts. An environmentally acceptable plan is to increase the maintenance levels in relation to the road surface and drainage structures to mitigate environmental impacts from erosion and sedimentation.

The Barraba Track

The Barraba Track is a four-wheel drive access track, used in the past for predominantly fire management and other Service access purposes in the park. Prior to 1967 the park was managed by a Trust, and the Barraba Track was used by residents of the Barraba district to access Dawson's Spring and the Mount Kaputar summit area from the east.

In 1974 the Barraba Track was closed to the public. Barraba Shire Council requested for many years that the track be upgraded to allow visitors to again use the track to access the main visitor areas from the eastern side of the park. The 1981 Plan of

Management proposed an investigation into the environmental and engineering feasibility of upgrading the Barraba Track within the park to serve a picnic area and walking track in the vicinity of Lindesay Rocks. A preliminary investigation was carried out and revealed substantial financial, environmental and management difficulties in upgrading the track.

A proposal for limited access to the existing track, without any upgrade, was developed following negotiations between the Minister for the Environment and Barraba Council representatives. In February 1999, a Review of Environmental Factors (REF) was commissioned with the Service as the proponent. The REF was subsequently approved, with the following conditions:

- The track be surveyed for threatened plant species;
- a weed monitoring program be established along the track;
- a risk assessment be undertaken for visitor safety;
- a soil erosion and sedimentation monitoring program be established;
- the heritage value of the “Chinese Fence” be investigated;
- traffic counters monitor vehicle use of the track; and
- vegetation monitoring be undertaken in the sub-alpine area adjacent to the track.

The REF determination stipulated that should there be negative impact on the track at the culmination of a twelve-month trial period, future public access to the track would be terminated.

Following a public exhibition period, amendments were made to the 1981 Plan of Management to allow for restricted public vehicle access to the Barraba Track for a twelve-month trial period. Existing gates west of Brushy Mountain Picnic Area and at the western end of the track near Dawson’s Spring were replaced with substantial gates designed to allow permit holders to open them with ease, while deterring attempts at illegal access. A permit and key system were established to allow limited four-wheel drive access by the public and a set of guidelines was drawn up by the Service in conjunction with the Regional Advisory Committee.

The public access trial commenced on 9 September 2000, allowing a maximum of ten public vehicles per calendar week to that part of the Barraba Track between Brushy Mountain Picnic Area and the Kaputar Plateau. To avoid erosion of the track due to use during wet conditions, and for the safety of track users, visitor vehicles were prohibited from using the track when wet or snowing.

In September 2001 the public access trial was extended for a further twelve months to allow for more conclusive monitoring of environmental impacts. In July 2002 a review of the environmental monitoring programs found no substantive evidence of negative environmental impacts due to public vehicle use of the track. The review made the recommendation that existing arrangements allowing restricted public access to continue for a further period of three years after which a further review will be conducted to decide if public access will be allowed to continue.

Policies

- * The road system will be maintained to provide access to facilities within the park. Public vehicle access will be permitted only on roads shown on Maps 1 and 2.
- * That part of the Barraba Track between Brushy Mountain Picnic Area and the Kaputar Plateau is identified as a Service road and will not be available as a public road except for limited four-wheel drive access via a permit system for a period of three years following adoption of this plan. A review of environmental impacts from the public access trial will be conducted at the termination of the three-year trial to decide if future public access is to continue. Public access during the three-year trial will be subject to the following conditions:
 - a maximum of ten public vehicles per calendar week;
 - no access will be permitted during times of predicted snowfall;
 - no permits will be issued following rainfall greater than 5mm until the track has dried out sufficiently for safe access; and
 - no use of the track will be permitted after dusk.

Actions

- * The road to the summit of Mount Kaputar will be maintained as a well-drained gravel surfaced road.
- * Limited public vehicular access will be provided along the Barraba Track utilising a permit system. The system will continue to operate under a set of guidelines drawn up by the Service in conjunction with the Regional Advisory Committee and relayed by the Barraba Tourism Committee – Tamworth Regional Council to permit holders. Three years from the adoption of the Plan, a review of environmental impacts of the public access trial will be conducted to decide if future public access is to continue. If it is determined that public vehicle access is to continue, the conditions above, including its use for limited access via a permit system, and monitoring of the track at least twice a year will be continued.

4.3.4 Camping and Picnicking Facilities

There are two car-based camping areas in the park, at Dawson's Spring and Bark Hut. Dawson's Spring is located in a sub-alpine environment and both campgrounds have limitations imposed by climate and their fragile vegetation, as well as their location, siting and design. The snow gum/snow grass environment at Dawson's Spring is particularly susceptible to disturbance and is limited in extent. It is therefore considered desirable to limit further development in this area.

Neither camping area will be expanded in area but the campsites and access roads may be redesigned to permit better use of the existing areas. At peak times demand for camping sites at Dawson's Spring exceeds the supply of sites. If demand for campsites at Dawson's Spring during peak periods continues to escalate, a booking system for campsites may be considered. The only alternative site for the development of an additional campground is on the Bullawa Creek near the old

"Camp Palmer" site. It is considered that too few visitors would choose to utilise a campground in this area as this site is too far away from the sub-alpine area, and a nearby privately owned caravan park already provides an alternative for campers. The existing areas developed for car based camping at Dawson's Spring and Bark Hut will continue to be maintained as camping areas. A self-registration system for campers has been introduced.

The 1981 plan proposed a camping area on Bullawa Creek at the base of the mountain. Camping facilities are not now considered necessary because the sub-alpine area remains the focus for visitors to the park, and demand for facilities at Bullawa Creek are low. School and other groups which camp in the park will continue to be encouraged to use the facilities at Bark Hut, and travel by vehicle to Dawson's Spring as required. Caravan-based visitors to the park have access to a privately run caravan park only 4km from the park boundary on the Mount Kaputar Road. The Namoi District Scout Association's old "Camp Palmer" site is also located on Bullawa Creek, the lease of which expired in 1992. This area has not been used for many years and will be rehabilitated and allowed to regenerate.

Several old picnic areas exist along the Bullawa Creek between Foggy Dell and the old "Camp Palmer" site. Although public use of this area is low local people use the area for recreation. The facilities will continue to be maintained despite their low level of use.

Other picnic areas include Sawn Rocks and Waa Gorge in the northern part of the park, and Brushy Mountain on the Barraba Track. Sawn Rocks picnic area offers visitors gas barbecues, toilets and wheelchair access on a short walking trail to the geological formation of Sawn Rocks. Facilities at Waa Gorge include a toilet, picnic table and walking trail.

The old picnic shelters at Brushy Mountain on the Barraba Track will be removed as they are in poor condition. In their place the Service will provide a covered picnic table, BBQ and rainwater tank and interpretive signage for visitors. Car parking and a toilet may be provided, subject to community consultation and a review of environmental factors.

A number of other developments were proposed in the 1981 plan that have not eventuated. These included a proposed picnic area at the Devils Hole and a picnic and camping area at Ningadoo. Neither of these facilities will be developed as public access to these areas is presently at the discretion of neighbouring landholders and demand for access is low.

Policies

- * Dawson's Spring and Bark Hut will continue to cater for camping and day use on the Kaputar Plateau. The area of development will not be expanded beyond current sizes.
- * Campsites and disturbed land around campsites may be temporarily closed to minimise impact and allow revegetation to occur.
- * Solid waste will not be incinerated or disposed of inside the park.

- * Cleared areas at Bullawa Creek will be allowed to regenerate and the old “Camp Palmer” site rehabilitated.

Actions

- * The old picnic shelters at Brushy Mountain near the lower gate of the Barraba Track will be replaced with a covered picnic table, BBQ, rainwater tank and interpretive signage for visitors. A composting toilet and car park may be provided if sufficient demand is established, subject to a review of environmental factors and community consultation.
- * Solid waste and recyclable materials will be transported and disposed of at authorised disposal sites outside the park.

4.3.5 Cabins at Dawson’s Spring

Limited overnight accommodation is presently available in two cabins at Dawson’s Spring. The cabins at Dawson’s Spring were constructed of local stone in 1965 and are of local historic significance. A third cabin is presently used as a Service office and occasionally as an information centre during peak visitation periods. The third cabin should be made available for use by the public, especially given that demand for the cabins presently exceeds capacity.

Although the potential for provision of further accommodation in the park such as the existing cabins at Dawson’s Spring should not be ruled out, the protection of the natural environment in the sub-alpine area must remain the main priority in management of this area. There was consensus at the public meetings during the public consultation phase of this plan that no further development should occur in the sub-alpine area of the park apart from an ongoing upgrade of existing facilities. Opportunities for private overnight accommodation exist within a few kilometres of the park boundary in the Bullawa Creek area and near Killarney Gap.

Policies

- * Cabin accommodation will continue to be provided to the public at Dawson’s Spring.
- * Cabin accommodation at Dawson’s Spring will be limited to three cabins.
- * The Service will monitor cabin occupation statistics, and conduct surveys to measure demand for cabin accommodation in the park.

Actions

- * The third cabin will be upgraded for accommodation and management purposes.
- * A conservation analysis will be completed prior to any upgrade or major maintenance works taking place on the cabins.

- * A cost / benefit analysis on the cabins will be undertaken to provide better management.

4.3.6 Firewood

Firewood collection to fuel campfires has a detrimental impact on the surrounding environment. The gathering of firewood results in the trampling of vegetation, and loss of fauna habitat. The regionally significant sub-alpine area represents just over one percent of the park, and receives the highest visitation rates.

Firewood collection has been prohibited in the park for several years. Firewood regulation signs have been erected at strategic locations inside and outside the park. Free gas and electric barbecues have been installed at picnic and camping areas at Dawson's Spring and Bark Hut as a compensatory measure, and are necessary during periods of Total Fire Bans. Small and large fireplaces are provided at Dawson's Spring and Bark Hut, and campers are encouraged to bring their own wood into the park if they wish to have a campfire.

Although the collection of firewood is prohibited in the park, it is considered that the low number of bush campers (backpack campers) does not have a significant impact on vegetation and habitat values in the park, including wilderness areas. Although bush campers will be exempt from the firewood collection ban, they will be encouraged to carry fuel stoves for cooking purposes.

Policy

- * Firewood collection in the park is prohibited, except by bushwalkers camping in remote locations away from the main visitor areas and environmentally sensitive areas.

Action

- * Interpretive signs to be installed in camping and picnic areas at Dawson's Spring and Bark Hut and information provided to local tourist information centres explaining firewood and fire ban regulations, the impact of firewood collection on the environment, and encouraging the use of alternatives for cooking such as fuel stoves.

4.3.7 Walking Tracks

The walking track system has been developed to provide access to places of scenic or geological interest and to link visitor facilities. Some management trails such as the Scutt's Hut and Barraba Tracks are also an important part of the walking track system. Although no new walking tracks will be constructed, upgrading of existing tracks will be undertaken where visitor use is causing degradation to the environment or where public safety concerns are evident.

Policy

- * Walking tracks will be upgraded to minimise degradation to natural values, and improve visitor safety.

Action

- * Prepare and implement a walking trail upgrade program for the park.

4.3.8 Horse Riding

Service policy is to exclude horse-riding from areas susceptible to erosion and weed invasion; areas where rare plant and animal species occur; areas where horses may have an unacceptable impact on water quality; and areas where an alternate recreational use predominates. Horse riding is not permitted in wilderness areas under the *Wilderness Act 1987*.

Horse riding is likely to cause an unacceptable environmental impact in the sub-alpine area where soils are prone to erosion, and water quality would be compromised. To protect the sub-alpine area from these impacts, horse riding will not be permitted on the Barraba Track between the gate at Brushy Mountain Picnic Area and Coryah Gap.

Policies

- * Horse riding is not permitted on the Barraba Track between the gate at Brushy Mountain Picnic Area and Coryah Gap.
- * Horse riding is permitted on management trails and Service roads outside of declared wilderness areas in the park such as in the Bullawa Creek area, and on the eastern portion of the Barraba Track.

Actions

- * Signs will be strategically installed to indicate areas where horse riding is not permitted.
- * Weed and erosion monitoring will be undertaken in areas used by horse riders.
- * A code of practice for horse riding in the park will be developed in consultation with the Regional Advisory Committee consistent with the NPWS horse riding policy.

4.3.9 Rock-climbing and other Adventure Activities

Although the number of visitor's rock-climbing and abseiling is low, the park is utilised by climbers from both the region and further afield. Service policy is that no specific facilities or provisions will be made for adventure activities.

Policy

- * Service staff will consult and maintain liaison with adventure based activity groups and other relevant stakeholders.

Action

- * The NPWS will provide information and guidance on Service policy to visitors wishing to undertake adventure activities in the park, and will require minimal impact use of the park for these activities.

4.3.10 Cycling

Although cycling is considered a legitimate alternative to walking on public roads and management trails in the park, it is inappropriate on walking tracks. Although the number of cyclists currently using the park is low, enough cyclists use the park to warrant the provision of information on signs regarding cycling on park walking tracks.

In line with current Service policy on cycling within declared wilderness areas, this plan specifies that cycling will be permitted on management (vehicle) trails. The impact of cycling on management trails in wilderness areas will be periodically reviewed and restrictions will be imposed as necessary if degradation of wilderness values occurs, or if the ability of the Service to meet its obligations under the Wilderness Act is threatened.

Policies

- * Cycling is not permitted on walking tracks in the park.
- * Cycling is permitted on roads and (vehicle) management trails in the park.
- * Restrictions will be placed on cycling on specified management trails where cycling is considered incompatible with the protection of natural and cultural resources. Cycling will be prohibited on management trails in wilderness if adverse impacts are noted.

Action

- * Appropriate signage or other information will be provided at trailheads outside wilderness areas for the benefit of cyclists and other park users.

4.3.11 Research

The purpose of scientific study in the national park is to improve understanding of its natural and cultural heritage and the processes that affect them. Research also establishes the requirements for management of particular species.

Service research efforts must be directed towards the areas of greatest need and will concentrate on the effectiveness of management strategies to protect the natural and cultural values of the park.

Research by other organisations and students may provide valuable information for management. A prospectus will be prepared to encourage involvement of other organisations, including universities and schools, in priority research areas and for educational purposes. Some important research topics have been mentioned in earlier sections of this plan.

Policies

- * Mount Kaputar National Park will be available for appropriate and authorised research.
- * Service conducted research will aim to provide information on the natural and cultural heritage and on human use in order to facilitate improved management of the park.
- * Researchers from other organisations will be encouraged to design programs to provide information that is directly useful for management purposes.
- * Liaison will be maintained with researchers to obtain as much mutual information and assistance as possible. The results of research will be required to be provided to the managers of the park.
- * Research markers must be placed in locations that will minimise their visual impact.

Action

- * A prospectus will be prepared as a guide to preferred research projects in the national park. Preferred topics will be those of direct relevance to management and will include:
 - The effects of fire on significant communities and species.
 - Value of vegetation communities as habitat for native fauna species. Particular notice of the needs of threatened fauna species shall be taken into account.
 - The effectiveness of pest control strategies on biodiversity in the park.

4.3.12 Management Operations

Mount Kaputar National Park contains a number of alien tenures, occupancies and easements that are the responsibility of authorities other than the National Parks and Wildlife Service.

They are:

- . A transmission line (22KVA) in Bullawa Creek valley serving the television and radio complexes at Mount Dowe and the Governor;

- . Mount Dowe telecommunications facility (excluded from the park);
- . Radio towers and facilities at Cliff Face Lookout between the Governor and West Kaputar Rocks(excluded from the park);
- . Transmission line to 'Tubaroo' and 'Foggy Dell' in Bullawa Creek Valley, and transmission line to Dawson's Spring from Mount Dowe;
- . Telephone line over Killarney Gap; and
- . Telephone line to 'Tubaroo' and 'Foggy Dell' in Bullawa Creek.

These will continue to be maintained and operated in accordance with the agreement, lease, licence, occupancy or easement between the Service and the authority. It is envisaged that each of these tenures will continue for the life of this plan, but the Service will continue to try to minimise the impacts of the developments upon the park.

In addition the Service maintains a number of developments for its own management purposes, including management tracks, two helipads, and a house, depot and storage sheds at Foggy Dell. Helipads at Foggy Dell and near Dawson's Spring are important for the maintenance of efficient aerial operations in the park. Foggy Dell was previously a works depot for the park.

The helipad near Dawson's Spring also provides a secure area for the storage of construction materials. It is located on rocky ground and its fringes support lichens, mosses and algal crusts. Vehicle access to the helipad by Barraba Track permit holders and Service vehicles is causing some erosion and sedimentation problems with resulting impact on the surrounding lichen community. These impacts will be minimised by restricting vehicular access to Service vehicles only.

Policies

- * Non-park uses shall be managed in accordance with the principles of the licence, agreement, easement, occupancy or lease.
- * No additional licenses or easements will be permitted unless in accordance with the provisions of the National Parks and Wildlife Act and only after proper environmental assessment.
- * The management tracks shown on Maps 1 and 2 will be maintained.
- * Helipads at Foggy Dell and Dawson's Spring will be maintained.
- * Emergency facilities and limited storage facilities will remain at Foggy Dell. Structures should remain concealed and inconspicuous where possible.

Actions

- * A locked gate will be installed at the entrance to the Dawson's Spring helipad site to prevent vehicular access by Barraba Track permit holders.
- * The residence at Foggy Dell will be removed.

5. PLAN IMPLEMENTATION

This plan of management is part of a system of management developed by the National Parks and Wildlife service. The system includes the National Parks and Wildlife Act, management policies, established conservation and recreation philosophies, and strategic planning at corporate, Branch and Regional levels.

The implementation of this plan will be undertaken within the annual programs of the Service's Narrabri Area. Priorities determined in the context of area, regional and directorate strategic planning, will be subject to the availability of necessary staff and funds and to any special requirements of the Director-General or Minister.

Area programs are subject to ongoing review, and works and other activities carried out in Narrabri Area are 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 undertaken in accordance with established environmental assessment procedures.

Section 81 of the National Parks and Wildlife Act requires that this plan shall be carried out and given effect to, and that no operations shall be undertaken in relation to the national park unless they are in accordance with the plan.

No term is proposed for this plan of management. 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 National Parks and Wildlife Act.

As a guide to the implementation of this plan, relative priorities for identified activities are summarised below:

ACTIVITY	PLAN REF
High Priority	
* Implement Park Fire Management Plan and annual operations plans.	4.1.5
* Prepare and implement a walking track upgrade program.	4.3.7
* Install new picnic facilities at Brushy Mountain.	4.3.4
* Update and implement pest control plans.	4.1.6
* Prepare and implement interpretation and signage strategy.	4.3.1
* Install interpretive signs to discourage disturbance to bats.	4.1.3
* Prepare cabin conservation and cost/benefit analyses. Upgrade third cabin at Dawson's Spring for accommodation and management.	4.3.5
* Develop a code of practice for horse riding in the park.	4.3.8
* Undertake coliform and <i>E. coli</i> monitoring.	4.1.1

Medium Priority

- * Install firewood interpretive signs. 4.3.6
- * Prepare an Aboriginal heritage survey strategy for the park 4.2.1
- * Install a gate at helipad on Barraba Track. 4.3.12
- * Review environmental impacts of access trial on Barraba Track. 4.3.3
- * Install signs on horse riding restrictions and monitor use areas. 4.3.8
- * Install signs on cycling restrictions. 4.3.10
- * Survey, protect and interpret the Chinese fence. 4.2.2
- * Survey and assess the cultural significance of internal fences. 4.2.2
- * Conduct monitoring of Aboriginal sites. 4.2.1
- * Implement Foggy Dell Conservation Plan. 4.2.2
- * Monitor erosion and undertake control measures where necessary. 4.1.1
- * Prepare and implement a revegetation strategy for cleared areas. 4.1.2
- * Install interpretive signs on the Barraba Track 4.2.2
- * Implement threatened species recovery plans. 4.1.2/3
- * Prepare a research prospectus. 4.3.11

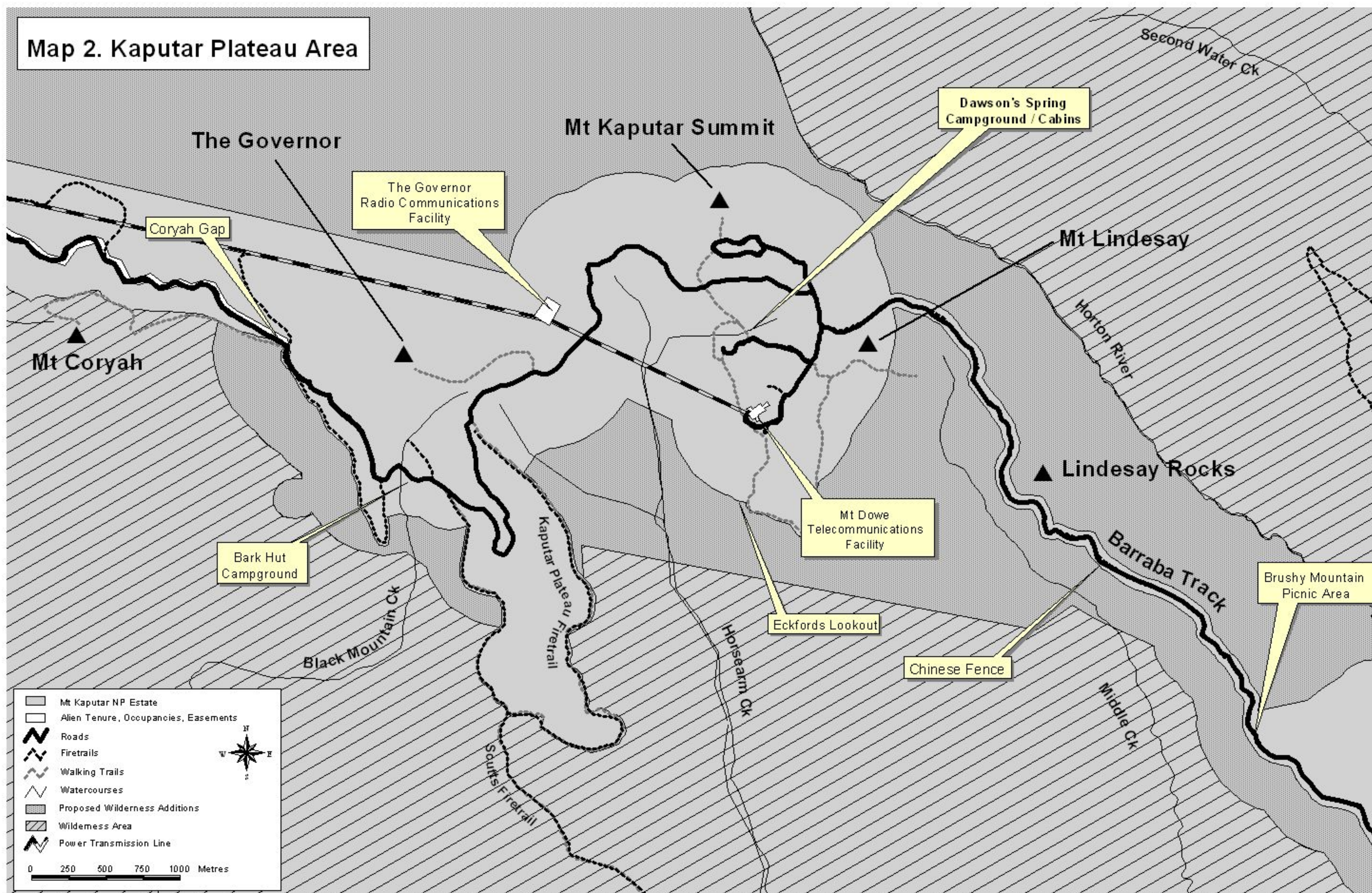
Low Priority

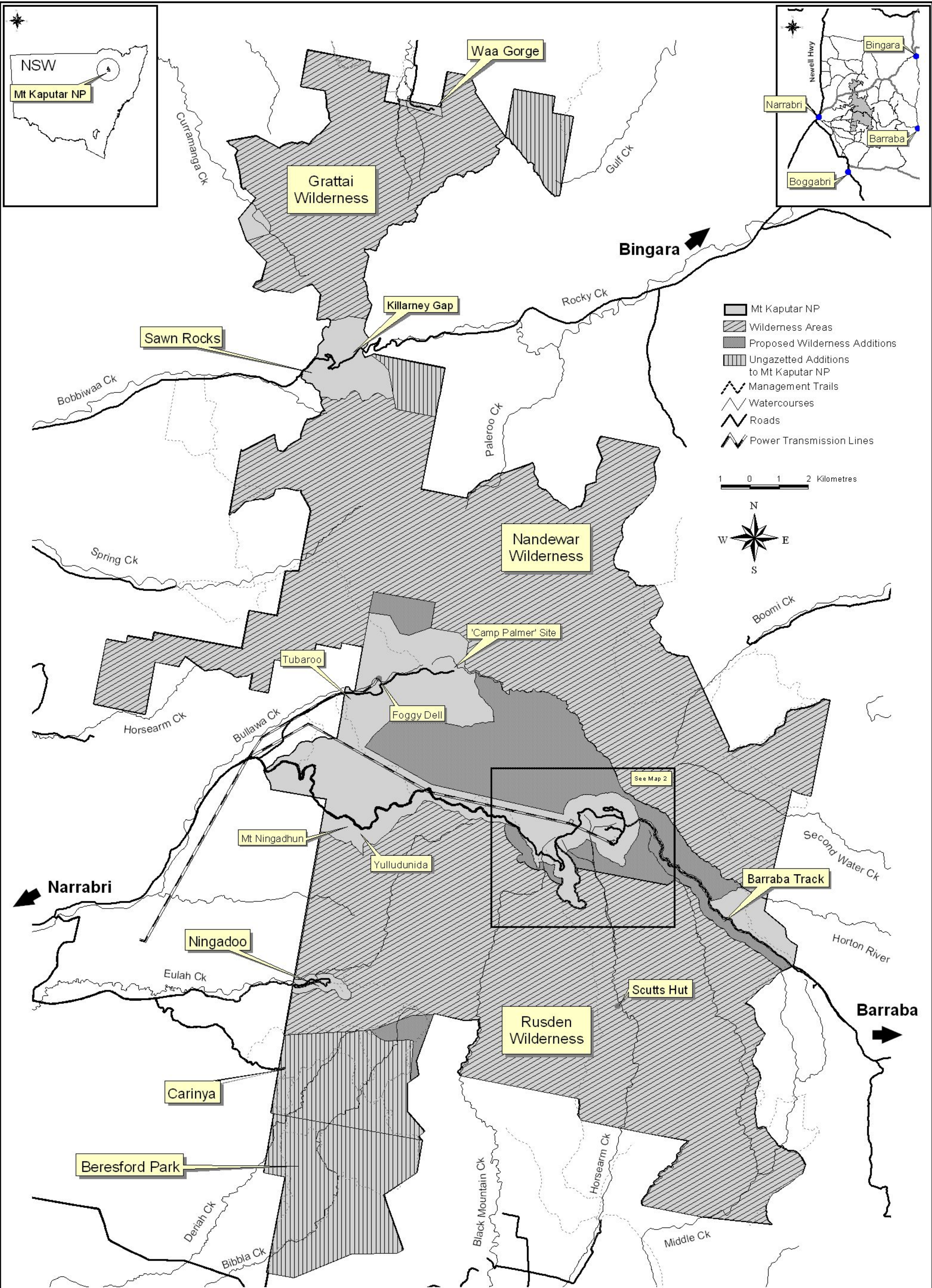
- * Prepare conservation guidelines for Ningadoo. 4.2.2
- * Install interpretive signs at Bark Hut 4.2.2
- * Remove residence at Foggy Dell 4.3.12
- * Survey for woodland birds and other fauna 4.1.3

6. SELECTED BIBLIOGRAPHY

- Briggs, J. D. and Leigh, J. H. (1996) *Rare or Threatened Australian Plants*. Revised Edition. CSIRO, Melbourne.
- Bush, G. (1996) *Visitor Use Plan; Mt Kaputar National Park*. Internal Report.
- Fox, A.M. (1988) *Interpretive Prospectus; Mount Kaputar National Park*. Unpublished Report.
- Fox, P. (1994) *Guidebook; Mount Kaputar National Park*. The Beaten Track Press, Inprint Limited, Australia.
- Gojak, D. (2000) *Archaeological Assessment of the "Chinese Fence", Mt Kaputar National Park*. NPWS Internal report.
- Lanyon, T. (1999) *Review of Environmental Factors, Limited 4 wheel drive visitor use of Barraba Track*. NPWS Internal Report.
- National Parks and Wildlife Service of NSW. (1981) *Mount Kaputar National Park Plan of Management*.
- National Parks and Wildlife Service of NSW. (1992) *Mount Kaputar National Park Draft Plan of Management*.
- National Parks and Wildlife Service of NSW. (1996) *Draft Scutt's Hut Conservation Plan, Mount Kaputar National Park*.
- National Parks and Wildlife Service of NSW. (1999) *Draft Foggy Dell Conservation Plan, Mount Kaputar National Park*.
- National Parks and Wildlife Service of NSW. (2002) *Foggy Dell Conservation Plan, Mount Kaputar National Park*.
- National Parks and Wildlife Service of NSW. (2002) *Review of Barraba Track Access Trial, Mount Kaputar National Park*.
- N.C.W.Beadle Herbarium (2005) Letter to NPWS dated 12 January 2005.
- Porteners, M.F. (1997) *Vegetation Survey of Sub-alpine Communities in Mt Kaputar National Park*. Unpublished Report.
- Porteners, M.F. (1998) *Vegetation Survey of Mt Kaputar National Park (Southern Portion)*. Unpublished Report.
- Reid, J. (1999) *'Threatened and Declining Birds in the new South Wales Sheep-wheatbelt: Diagnosis, Characteristics and Management'*. Reprt to NSW NPWS, Sydney.

Map 2. Kaputar Plateau Area





Map 1. MOUNT KAPUTAR NATIONAL PARK