

GOOBANG NATIONAL PARK

PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

November 2001

This plan of management was adopted by the Minister for the Environment on 7th November 2001.

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Cover photograph: the Wanda Wandong sector of Goobang National Park by P. Mathew.

NSW National Parks and Wildlife Service

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FOREWORD

Goobang National Park is located about 30 kilometres north east of Parkes in the central west of New South Wales. It is 42,080 hectares in size and encompasses areas previously known as Wanda Wandong, Hervey and Bumberry State Forests and Curumbenya Nature Reserve. The park is one of the largest remaining areas of natural vegetation in the central west of New South Wales. Vantage points from within the park provide scenic views of the surrounding region and have attracted visitors to the area over many years.

The park contains flora and fauna species associated with western New South Wales as well as those more commonly found on or east of the Great Dividing Range. Eleven native plant communities, nine of which are considered not adequately conserved within the Service estate, are located in the park. Many of the plant species found in the park are regarded as regionally significant because they occur at the limit of their known range. The park is also home to over 200 animal species, 74 of which are recorded as being at the limits of their known range.

The cultural heritage of Goobang National Park is also significant. Prior to European settlement, Aboriginal people made widespread use of the ranges for food and shelter, obtained water from the permanent springs, held ceremonies and quarried for tools. Gingham Gap was a major travelling route through the range.

The Central West District Advisory Committee hosted a public meeting at Peak Hill at the start of this plan of management process. The aim of the meeting was to inform on the development of the plan of management, the important values of Goobang National Park and to obtain ideas which could be incorporated into the plan. This plan reflects the views of local and regional communities that the park should provide for recreation and tourism as well as protection of the natural and cultural values. The Service has received strong community support in the establishment of this area as a national park and with its ongoing management.

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

Bob Debus
Minister for the Environment

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PART A. 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.

The procedures for the adoption of a plan are specified in the Act and involve five stages:

- . The Director-General gives notice that a plan of management has been prepared.
- . The plan is placed on public exhibition for at least one month and any person may comment on it.

The draft plan of management and all submissions received are referred to the National Parks and Wildlife Advisory Council for consideration.

The Director-General submits the plan of management, together with any comments and suggestions of the Council, to the Minister for the Environment.

The Minister may adopt the plan with or without amendment after considering the comments of the Advisory Council or may refer the plan back to the Director-General and Council for further consideration.

A plan of management for Goobang National Park was placed on public exhibition from 30th July 1999 to 29 October 1999. The exhibition attracted 13 submissions which raised a total of 17 issues. All comments received were referred to the National Parks and Wildlife Advisory Council for its consideration and advice to the Minister.

No operations may be carried out in Goobang National Park unless they are in accordance with this plan.

For additional information or enquires on any aspect of the plan contact the National Parks and Wildlife Service's Forbes Area Office at 83 Lachlan Street, Forbes (telephone (02) 6851 4429) or the Central West Region Office at 203-209 Russell Street, Bathurst (telephone (02) 6332 9488).

PART B. MANAGEMENT CONTEXT

1. NATIONAL PARKS IN NEW SOUTH WALES

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

For the purpose of preparing plans of management, the NSW National Parks and Wildlife Service has adopted the International Union for the Conservation of Nature and Natural Resources (IUCN) definition of a national park, that is:

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

National parks are part of the regional pattern of land use. Many land uses, for example agriculture, forestry and mining, require substantial modification of the natural environment. Management of national parks, however, aims at minimising disturbances to the natural and cultural environment.

2. GOOBANG NATIONAL PARK

2.1 Location, Reservation and Regional Setting

Goobang National Park is located in the central west of New South Wales. The park, which was gazetted in December 1995, is 55 kilometres in length and extends from approximately 50 kilometres south east of Dubbo to 30 kilometres north east of Parkes. The map on the centre pages of this plan illustrates the location and extent of the park. The park has a total area of 42,080 hectares, making it one of the largest areas of natural vegetation in central western NSW.

Goobang National Park is composed of two geographically discrete areas - the largest section incorporating portions of the Hervey and Curumbenya Ranges and the smaller Bumberry section, centred on Crokers Range, adjacent to the Orange-Parkes highway. The larger northern section, although contiguous, is itself somewhat disjointed being intersected by two arterial roads; the Parkes - Wellington Road and Peak Hill - Baldry Road. The park includes areas previously known as Hervey Range, Wanda Wandong and Bumberry State Forests and Curumbenya Nature Reserve.

Goobang National Park adjoins agricultural holdings managed for wool and crop production. Some of these holdings, mainly those to the west of the park and containing portions of the Hervey Range, include large areas of native vegetation. However, by far the vast majority of the land around the park has been subject to extensive modification and is dominated by a mosaic of cleared lands interspersed with sparsely vegetated road corridors and windbreaks. The northern boundary of the park adjoins an area along Tomingley Road which has been sub-divided into smaller blocks of land for use as rural residential and hobby farms.

Goobang National Park is one of several large remnants in the central west including Weddin Mountains and Conimbla National Parks near Grenfell, Nangar National Park south east of Forbes, and Warrumbungle National Park near Coonabarabran.

2.2 Importance of Goobang National Park

Goobang National Park contains a 55 kilometre stretch of range and escarpment country in the central west of New South Wales. The park is recognised as having an important role in conserving representative samples of central western flora and fauna. The area is the largest of several remnants of native vegetation in the region that together contribute to the conservation and protection of a sample of the biodiversity values of the State's central west.

An essential part of the management of Goobang National Park is to recognise its significance in a framework of regional conservation. A strategy for regional conservation should take into account the inter-relationships that exist between individual protected areas and other forms of land use. The provision of a network of protected areas is essential to allow plant and animal communities to survive and adapt in the context of environmental change. Corridors between protected areas and other areas of natural vegetation can assist in retaining genetic diversity of flora and fauna species of larger areas while also serving a conservation role in their own right. Additionally, the park can provide recreational and educational opportunities that complement those available in other parks of the central west of New South Wales.

Goobang National Park is significant in its own right due to its biodiversity, landscape, cultural and recreational values.

Key **natural values** include:

- a diverse range of native plant communities, 11 in total, 9 of which are regarded as under-represented in protected areas such as national parks and nature reserves. These communities provide a range of habitats for fauna of the area;
- nine threatened plants and at least a further 43 plant species at the limit of their known distribution;

- a diverse vertebrate fauna of 242 identified species. Eight of these species are regarded as threatened and a further 20 threatened species, although not yet recorded, are predicted to occur in the park. A further 74 species are regarded as at the limit of their known distribution or their occurrence in Goobang National Park is an extension to their previously known range; and
- the park is also regarded as being located at a biological ecotone. That is, it contains an area of overlap between vegetation communities and flora and fauna species of western New South Wales and those communities and species more commonly found on or east of the Great Dividing Range.

Significant **landscape values** of the park include:

- a large portion of Hervey and Curumbenya Ranges, including a number of visually striking north-south ranges with west facing cliffs that rise over 500 metres from the surrounding agricultural plains;
- major contribution to regional vegetation cover and habitat as part of a mosaic of vegetation remnants across the landscape;
- the large, rugged and relatively unmodified Curumbenya area, which has the potential to allow natural processes to continue without significant human interference and to provide opportunities for solitude and appropriate self-reliant recreation;
- protection of the upper catchments of tributaries of the Bogan, Macquarie and Lachlan River systems; and
- a significant contribution to the maintenance of Parkes' domestic water quality through the incorporation in the park of a portion of the catchment of three water supply dams.

Cultural heritage values of the park comprise:

- a large number and diversity of sites and places which are of significance and of contemporary importance to the Aboriginal community;
- a large number of sites which indicate extensive occupation and lengthy utilisation of the area by Aboriginal people; and
- sites that demonstrate the non-Aboriginal occupation of the area, most notably old sleeper cutter camps.

The key **educational and scientific values** of the park are:

- the opportunities it offers for environmental education and field studies, particularly for primary and secondary schools of nearby towns as well as a nearby field study centre;

- a role as a scientific reference area and opportunities for scientific studies of natural ecosystem processes, threatened species and fire ecology;
- a role as a cultural resource for ongoing archaeological and anthropological research, and
- opportunities for the Aboriginal community to inform the Aboriginal and non-Aboriginal community about traditional land management practices.

Major **recreation and tourism values** include:

- an absence of recreational facilities or developments, and the subsequent flexibility in the provision of recreational opportunities in the park in a manner that minimises impacts on natural values and complements those recreational opportunities available locally and elsewhere in the region; and
- its potential as a tourism destination for visitors to the central west seeking to experience the naturalness and scenic quality of the park's natural landscapes.

PART C. OBJECTIVES OF MANAGEMENT

3.1 General Objectives for National Parks

The following general objectives relate to the management of national parks in New South Wales:

- the protection and preservation of scenic and natural features;
- the conservation of wildlife;
- the maintenance of natural processes as far as is possible;
- the preservation of Aboriginal sites and historic features;
- the provision of appropriate recreation opportunities; and
- the encouragement of scientific and educational inquiry into environmental features and processes, prehistoric and historic features and public use patterns.

3.2 Specific Objectives for Goobang National Park

In addition to the above general objectives, the management of Goobang National Park will be subject to the following more specific objectives:

- The protection of the park as a representative sample of range and hill country of the central western slopes and plains and its associated plants and animals.
- Management of the park in the context of the surrounding landscape and vegetation remnants, and maintenance of the long term viability of its plant and animal communities.
- Protection of the area's scenic landscape values through the sensitive location and design of infrastructure and access.
- Protection of the remote, relatively unmodified nature of parts of the park, particularly the Curumbenya area, and the ability of this area to evolve without significant human interference.
- Management of native vegetation to
 - maintain natural floristic and structural diversity;
 - conserve threatened and other significant species known to occur in the park;
 - conserve communities of significance known to occur in the park;
 - regenerate disturbed areas that have been previously cleared or grazed; and
 - maximise habitat values for native animals, particularly threatened species.

- Protection of Aboriginal sites and places, and the provision of opportunities for the local Aboriginal community to be involved in the management of the park.
- Protection and interpretation of a representative sample of historic places.
- Provision of recreational facilities which, in recognition of the widespread and significant conservation values of the park, will have an emphasis on a limited number of vehicle and walking access opportunities with basic facilities.
- Promotion of public awareness and appreciation of Goobang National Park with emphasis on:
 - its geographical position at a biological ecotone, vegetation communities and their habitat value for native fauna;
 - the park as a large vegetation remnant in a largely cleared landscape, and the need for retention and sympathetic management of off-park remnant vegetation;
 - the Aboriginal cultural value of the park and its importance to the contemporary Aboriginal community; and
 - the appropriate recreational use of the park.

3.2 Overall Strategy

Goobang National Park will be managed as a significant area of native plant and animal communities in the central west of New South Wales. It is recognised that the park is a remnant in a largely modified surrounding environment and its long term biological integrity is greatly influenced by the maintenance of links with other natural areas.

The protection of the existing native plant and animal communities will be achieved by reducing, and where possible eliminating, threats to these species and communities. A fire regime consistent with maintaining native plant and animal diversity in a regional context will also be adopted, consistent with the park's fire management plan.

Management of historic sites within the park will be according to the provisions of the Burra Charter (Australia ICOMOS, 1992). Aboriginal sites and places will be protected and managed in active and close liaison with the relevant Aboriginal communities.

The management of public use of the park will centre on the provision and maintenance of access and facilities at basic standards, with the focus being on recreational opportunities in a largely undeveloped environment. A limited number of sites will be provided to encourage relatively low levels of use consistent with the conservation of the park's widespread conservation values. No public vehicle/horse access or facilities will be provided in the Curumbenya area to protect its value as a large natural area providing opportunities for self-reliant recreation.

Interpretive material will be provided at selected visitor destinations and may be augmented by face to face interpretive programs in periods of high public use such as school holidays and summer months. Emphasis will be placed on explaining park management programs and actions to the local community, neighbours, nearby Shire Councils and other government agencies.

PART D. POLICIES AND FRAMEWORK FOR MANAGEMENT

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

4. Goobang National Park: Its Natural Heritage
5. Goobang National Park: Its Cultural Heritage
6. Goobang National Park: Use of the Area

The policies established in this plan of management will provide the framework for management consistent with anticipated resources available to the Service and anticipated community trends over the next five to ten years. Such policies will also apply to any additions to the national park that may be acquired during the life of this plan.

The actions identified in this plan are those to which priority will be given in the foreseeable future. Other management actions may be developed over the life span of this plan consistent with the objectives and policies set out in the plan.

Where not specifically provided for in this plan, management will be in accordance with the *National Parks and Wildlife Act 1974* and with general Service policies.

For ease of reference, Goobang National Park has been divided into the following four sectors as illustrated on the map (centre pages):

- | | |
|----------------------|--|
| Wanda Wandong Sector | – that area between the Tomingley and Peak Hill - Baldry Roads |
| Hervey Sector | – that area between the Peak Hill - Baldry and Parkes - Wellington Roads |
| Curumbenya Sector | – that area south and east of the Parkes - Wellington Road |
| Bumberry Sector | – that area intersected by the Parkes - Orange Highway. |

(The Bumberry Sector is comprised of two parcels of land that are geographically discrete from the other three contiguous sectors.)

4. GOOBANG NATIONAL PARK: ITS NATURAL HERITAGE

4.1 Geology, Soils and Landscapes

In broad geological terms, the park is within the vast Lachlan Fold Belt, extending from the Queensland border through mid western NSW and Victoria to the eastern half of Tasmania. The park lies within the Quambone - Young and the Mt Foster - Tumut Zones of the fold belt (Scheibner and Basden, 1996).

The park incorporates a reasonably diverse geology consisting primarily of igneous and sedimentary rock types ranging from as little as 2 million years old to over 400 million years old (myo). The Late Devonian (350 - 375 myo) sediments of the Hervey Group extend from the northern boundary of the park south to the Beargamil Creek area. The Hervey Group consists of resistant quartz sandstones and reddish purple mudstones which have been folded into the prominent north-south syncline of the Hervey Range (Sherwin, 1996). Rocks of the Hervey Group are characterised by bedrock topped with a thick, white quartzite, red sandstone and red siltstone sequence - typified by the rugged white quartzite cliffs of Caloma Peak, white sandstones of the foothills of the western Hervey Range and the red sandstones of the eastern slopes.

The Middle Devonian (375 - 385 myo) Dulladerry Volcanics comprise the Curumbenya Range in the south east of the park. The dominant rock types within the Dulladerry Volcanics are white-banded rhyolite and reddish purple quartz feldspar porphyry. There is widespread variation in the rock types of the Dulladerry Group with consequent difficulties in accurately mapping the location and extent of the component rock types.

The eastern and western foothills of the Hervey Range consist of Quaternary (less than 2 myo) scree and talus comprised of detached blocks associated with little soil and residual deposits of alluvium and colluvium.

The soils of the Hervey Range are sandstone based and are generally light, shallow sandy and gravelly while those of the Curumbenya Range are deeper with alluvial deposits of a higher clay content. Well-drained red sandy soils typical of semi-arid environments occur in the north-west where the park incorporates semi-arid plains.

Soils occurring on higher ridges and peaks are skeletal, well drained and particularly low in nutrients such as phosphorous and nitrogen. Conversely, deep alluvial soils occurring on riparian flats, creeks and gullies often have impeded drainage and a high clay content.

Soils of sedimentary origin are sandy, poorly structured and, as a result of low levels of organic matter, infertile. They are usually highly erodible and as such represent constraints on use since they are often unable to carry regular vehicle traffic or high pedestrian use. Various control mechanisms are available to assist in minimising erosion of these soils where access is a necessity for management or other purposes.

The park is dominated by the north-south escarpment and ridges of the Hervey Range, rising approximately 500 metres from the adjacent western plains. The Hervey Range is comprised of a number of striking rocky outcrops with west facing cliffs and includes the high peaks of Caloma (778 m), Burrabadine (760 m) and Kadina (730 m). The range is dissected by a small, broad valley and the associated Greenbah and Budgebegamil Creeks.

In the south east of the park the rugged and relatively inaccessible plateau of the Curumbenya Range dominates the landscape. The range contains a number of unnamed peaks up to 800 metres in height and is typified by exposed stony ridges and rock platforms and a diversity of vegetation communities. A number of reasonably deeply incised creek lines occur in the Curumbenya Gulf area of the park and are associated with the scenic waterfall (just outside the park) on Waterfall Gulf Creek.

The small area of semi arid plains that lies within the north-western section of the park are part of a geomorphological system that continues to the semi-arid dunefields in western NSW.

The southern Curumbenya sector of the park contains part of the catchment area for several dams that together provide a domestic water supply to the nearby town of Parkes. Lake Metcalfe is located on Beargamil Creek while Lake Endeavour and its downstream partner Lake Bumberry lie on Billabong Creek.

The catchment of Lake Metcalfe is almost totally within the park, although a significant portion centred on Beargamil Creek was cleared for grazing purposes before park gazettal. Water quality within the lake should improve significantly following gazettal and the removal of grazing. By contrast the catchment of Lakes Endeavour and Bumberry is divided approximately equally between cleared agricultural land and either naturally vegetated agricultural land or Goobang National Park. The park therefore plays an important role in maintaining water quality in the catchment.

The numerous creeks within the park are ephemeral in nature with only small waterholes persisting in dry times.

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, natural and or cultural values, appropriate control and rehabilitation measures will be undertaken after an assessment of such works on the natural and cultural values of the area.
- All works will be sited, designed and undertaken in a manner that minimises soil erosion and aesthetic impacts on the park's landscape.
- The catchment of Beargamil Creek within the park will not be subject to any development. Vehicle access will be limited to management actions necessary to maintain the natural and cultural values of the area.

Actions

- Existing areas of soil erosion will be mapped and prioritised for rehabilitation works.
- Liaison will be maintained with the relative authorities regarding water quality of Lake Metcalfe.

4.2 Climate

Goobang National Park experiences a temperate to semi-arid climate characterised by hot summers and cool to mild winters. The 55 kilometre north-south geographical extent of the park results in slight variations of temperature and rainfall, with increases in temperature and decreases in rainfall from south to north west.

The orographic effect of the Hervey Range has resulted in significant differences in rainfall patterns between areas west and east of the park. West of the Hervey Range the township of Peak Hill has an average annual rainfall of 564mm while east of the range Cumnock has an annual average rainfall of 645 mm. Heaviest falls of rain occur in the summer months and are usually associated with south moving maritime air from tropical Australia. Thunderstorm events are also common between November and February. The majority of fires within the park can be attributed to lightning strikes arising from thunderstorms.

On average January is the hottest month of the year at Peak Hill, with mean daily averages from 17° to 32° C, and July the coldest with mean daily averages of 4° to 15° C. Light and infrequent frosts generally occur between mid April to mid October.

The climate of the area has important implications for recreational use of the park. The heavy rainfalls that usually occur throughout summer often make the 2WD and 4WD access trails in the park impassable to traffic. Periodic closure of access trails within the park may be necessary during these times (see Section 6.1.1). The high summer temperatures and the unreliability of natural water supplies in the park will also need to be considered in the promotion of recreation opportunities in the park (see Section 6.2).

4.3 Native Vegetation

Goobang National Park is a large area of remnant forest and woodland complex in the Central Western Slopes botanical subdivision of New South Wales - a region of the State that has been largely cleared of native vegetation. The park contains a diversity of vegetation types typical of this region including vegetation communities and species of conservation significance, some of which are regarded as vulnerable and inadequately conserved in the protected area network. Additionally, the park represents the western limit of one of the communities and the eastern or western limits of distribution for some species. The park is regarded as incorporating an ecotone, that is it contains an area of overlap between vegetation communities and

flora and fauna species of western New South Wales and those communities and species more commonly found on or east of the Great Dividing Range.

All the vegetation communities occurring in the park have been severely affected throughout the region by clearing and logging, altered fire regimes and agricultural practices, resulting in widespread habitat loss and fragmentation. Much of the remnant vegetation in the region occurs on freehold land. Gazettal of Goobang National Park has been an extremely important addition to the conservation of vegetation communities in central western New South Wales.

A survey of the vegetation communities of Goobang National Park was conducted by Porteners between September 1996 and January 1997. The summary of vegetation communities in this section of the plan is primarily based on the findings of the above survey and the resulting report (Porteners, 1997).

A total of 363 plant species were recorded during the survey. An additional 96 records from other surveys increases the total of known plant species within the park to 459. Many species had not been recorded previously in the region.

Eleven distinct vegetation communities, including two sub-communities, have been identified within the park and range from open forest to open heathland communities, but most are forms of open woodland. There is considerable species overlap between communities.

Geographical location along the north-south extent of the park, and the impact this has on the rainfall received (see Section 4.2), appears to be the main environmental factor affecting the distribution of species in the park. Vegetation communities however appear to respond more to a combination of environmental factors such as substrate, soil drainage, altitude and geographical position. Special habitat niches such as riparian situations and rocky areas are also influential. Most vegetation communities are not confined to a particular geological type, although there are marked floristic differences between the sedimentary Hervey Range and the volcanic Curumbenya Range.

Fire history also determines species composition and structure of the park's vegetation communities. For example, woodlands in the northern area of the park burnt in 1994 display an obvious regrowth structure and species composition. Similarly, mallee communities of *Eucalyptus dwyeri* in the north-west may be a result of the areas burning regime. Monitoring of the regeneration of the area burnt in the early 1998 bushfire will provide additional information on the impact of fire on the species composition and structure of vegetation communities.

Previous land use and logging history have also influenced vegetation distribution, structure and composition. Consistent with the previous tenure of some areas of the park as State Forest, there has been low level of logging activity in the park. Most of this activity has been selective logging for sleepers or fence posts and has targeted specific species, particularly Mugga Ironbark and White Cypress Pine. Little old growth of either of these species remains. The proximity of the park to several townships also resulted in harvesting of timber for domestic firewood.

The park includes a number of cleared areas where native vegetation has been totally removed to facilitate certain activities, usually grazing or logging camps. Approximately 1.3% of the park is currently cleared. The largest of these cleared areas is approximately 450 hectares in size and centred on Beargamil Creek in the park's south-west. These cleared areas now support a mixture of native and introduced grasses, although the removal of grazing since gazettal of the park has allowed limited regeneration of trees in some of these areas.

Tables 1 and 2 (pages 15 & 16) provide some basic information for each vegetation community including an indication of species richness, numbers of introduced species and conservation status.

Significant Communities and Species:

Significant Communities:

According to Benson (1989), nine of the eleven vegetation communities within the park are regarded as inadequately represented in national parks or reserves in New South Wales. Their occurrence in Goobang National Park greatly assists in their regional conservation.

Of the nine communities, the White Box Woodland with a grassy understorey (Community 7) is regarded as most significant due to it being one of the most vulnerable woodland communities in the State. This community once extended from the north to the south of New South Wales along the western slopes, but clearing for agricultural purposes means that it now only exists as isolated stands in parts of its former range.

The dry sclerophyll woodlands of the park (Communities 1 to 6 inclusive) are also considered inadequately conserved and vulnerable due to major reductions in their extent in the western slopes.

The Open Heathland (Community 8) is regarded as adequately represented within national parks and other reserves of New South Wales, however its occurrence in Goobang National Park is one of the western limits for heathlands in the State and is therefore also of significance.

A mallee form of Dwyer's Red Gum *Eucalyptus dwyeri* has been recorded in association with Spinifex *Triodia scariosa* and Broombush *Melaleuca uncinata* at the north-western boundary of the park. This small area is considered significant and a possible eastern limit of distribution for the mallee form of this species.

All the park's eleven native vegetation communities are known to provide habitat for the park's vulnerable or otherwise significant fauna.

Significant Species:

A total of nine species within the park are regarded as significant because they are rare or vulnerable nationally, in New South Wales, or regionally. Tables 3 and 4 (pages 16 & 17) provide basic information on each of these nine species.

A number of species recorded in the park are at the eastern or western limits of their known distribution, although they often extend far to the north or south in New South Wales. These species occur in the more temperate zone of the western slopes that occurs between the semi-arid climate of the western plains and the cooler eastern tablelands. Species at the limit of their distribution are regarded as significant as they may assist in defining environmental restrictions on distribution, may be under stress due to adverse environmental conditions or may be at risk of becoming isolated populations and potentially evolving into subspecies.

Table 1: Vegetation Communities of Goobang National Park

Vegetation Community	% of Park	Mean No. Native species per survey site	Mean No. Exotic species per survey site	Conservation Status (Benson, 1989)	Conservation Status (Porteners, 1997)
1. Tumbledown Red Gum (<i>Eucalyptus dealbata</i>) and Dwyer's Red Gum (<i>E. dwyeri</i>) Woodland	1.4	30	3	Vulnerable, inadequately conserved.	
2. Inland Scribbly Gum (<i>E. rossii</i>) Woodland	0.5	35	2	Vulnerable, inadequately conserved.	Vulnerable, inadequately conserved.
3a. Mugga Ironbark (<i>E. sideroxylon</i>) and Black Cypress Pine (<i>Callitris endlicheri</i>) Woodland	6.7	34	4	Vulnerable, inadequately conserved.	Poorly Conserved
3b. Red Ironbark (<i>Eucalyptus fibrosa</i>) and Black Cypress Pine (<i>Callitris endlicheri</i>) Woodland	28.3	32	2	Vulnerable, inadequately conserved.	Poorly Conserved

Table 2: Vegetation Communities of Goobang National Park (continued)

Vegetation Community	% of Park	Mean No. Native species per survey site	Mean No. Exotic species per survey site	Conservation Status (Benson, 89)	Conservation Status (Porteners, 97)
4a. Red Stringybark (<i>Eucalyptus macrorhyncha</i>) Woodland	18.6	35	2	Vulnerable, inadequately conserved.	Vulnerable, inadequately conserved.
4b. Red Stringybark (<i>E. macrorhyncha</i>) with Bundy Box (<i>E. goniocalyx</i>) Woodland	13.8	39	2	Vulnerable, inadequately conserved.	Vulnerable, inadequately conserved.
5. Red Ironbark (<i>E. fibrosa</i>) and Red Stringybark (<i>E. macrorhyncha</i>) Woodland	9.6	32	1	Vulnerable, inadequately conserved.	Vulnerable, inadequately conserved.
6. Red Gum (<i>E. blakelyi</i>), Yellow Box (<i>E. melliodora</i>) and Grey Box (<i>E. microcarpa</i>) Forest/Woodland	8.2	35	10	Vulnerable, inadequately conserved.	Vulnerable, inadequately conserved.
7. White Box (<i>E. albens</i>) Woodland	0.4	36	8	Vulnerable, inadequately conserved.	Most vulnerable Woodland comm. in NSW.
8. Open Heathland	8.3	35	1	No Benson association.	Western limit in NSW.
9. White Cypress Pine (<i>Callitris glaucophylla</i>) and Bulloak (<i>Allocasuarina leuhmannii</i>) Woodland	2.8	23	1		

Table 3: Flora species of significance (from Porteners, 1997)

SPECIES	SIGNIFICANCE	HABIT/ENVIRONMENT	COMMUNITY IN PARK
<i>Leucopogon</i> sp. aff. <i>fraseri</i>	Possible new species. First recorded in park - one specimen only.	Prostrate shrub/ Recorded on low sedimentary ridge.	Inland Scribbly Gum Woodland.
<i>Pterostylis</i> sp. aff. <i>longifolia</i>	Possible new species. First recorded in park - one specimen only. May be endemic to park.	Orchid/ High altitude volcanic site.	Red Stringybark and Bundy Box Woodland.

Table 4: Flora species of significance (continued) (from Porteners, 1997)

SPECIES	SIGNIFICANCE	HABIT/ENVIRONMENT	COMMUNITY IN PARK
<i>Pterostylis sp. aff. pusilla</i>	Possible new species. First recorded in park - may be restricted to region.	Orchid/east facing volcanic slope.	Red Stringybark and Bundy Box Woodland.
<i>Tylophora linearis</i>	Endangered (Briggs and Leigh, 1996). Listed as endangered in New South Wales <i>Threatened Species Act 1995</i> . Vulnerable in the region. Record in park may be only occurrence within a conservation reserve	Slender twining shrub/Dry scrub habitats. Recorded on low altitude sedimentary flats in the park.	White Box Woodland, Mugga Ironbark Woodland, Red Ironbark Woodland, and White Cypress Pine/ Bulloak Woodland.
<i>Eriostemon ericifolius</i>	Rare (Briggs and Leigh, 1996). Listed as vulnerable in New South Wales <i>Threatened Species Act 1995</i> . Rare in the region.	Shrub 1 - 2 metres. /Dry sclerophyll forest and heath on damp sandy flats and gullies.	Stringybark Woodland. Not recorded by Porteners, 1997.
<i>Goodenia macbarronii</i>	Vulnerable (Briggs and Leigh, 1996). Listed as vulnerable in New South Wales <i>Threatened Species Act 1995</i> . Seasonally common in the region.	Small annual herb/Damp sandy soils, appears seasonally or opportunistically.	Red Gum, Yellow Box and Grey Box Forest/Woodland.
<i>Astrotricha linearis</i>	Only known occurrence west of the Great Dividing Range.	Shrub to 1.5 metres. /East facing slope.	Inland Scribbly Gum, Red Stringybark Woodland.

The presence of the following nine species in the park represents an extension of their known range in New South Wales to the Central Western Slopes Botanical Subdivision of the State (species marked with an * were not recorded by Porteners but by previous surveys of the park):

Cassytha melantha *
Cental ascitic
Chartroom Candelo
Correa reflex var. Reflex
Entolasia stricta
Goodia lotifolia *
Lobelia gibbosa
Patersonia fragilis *
Senna artemisioides nothosubsp coriacea

An additional 26 species are considered uncommon in the park although they may be recorded and regarded as common in other areas of the state. Their significance stems from their being:

- i) rarely collected from the central western slopes;
- ii) recorded only once in Porteners survey and potentially locally rare; or
- iii) disjunct populations of species or species at the geographical limit of their known distribution.

Eight other species are very common in the park but are regionally restricted to the central western slopes.

Policies

- Native vegetation will be managed to:
 - maintain floristic and structural diversity;
 - conserve the threatened or otherwise significant species known to occur in the park;
 - conserve communities of significance known to occur in the park;
 - encourage regeneration of areas previously cleared; and
 - maximise habitat values for native animals.
- Given its status as one of the most threatened woodland communities in New South Wales, the small areas of White Box Woodland that occur in the park will be excluded from management and recreational activities, except those activities necessary to maintain and enhance the community.
- Similarly, the species rich area of the park centred on Benya Creek will be excluded from management and recreational activities, except those activities necessary to maintain and enhance the area's biodiversity values.
- Cleared areas will be managed to encourage regeneration of native plant communities.
- Research into the distribution of threatened or otherwise significant species known to occur in the park will be encouraged. Priority will be given to those species listed in Tables 3 and 4.
- The fire management plan for the park will incorporate fire regimes consistent with the conservation and maintenance of significant communities and species known to occur in the park.

Actions

- The Service will monitor the abundance and vigour of priority species over time to gauge and improve the effectiveness of management actions.
- The Service will monitor the structure and species diversity of significant communities over time to gauge and improve the effectiveness of management actions.

- The Service will map cleared areas and prioritise them for actions to encourage regeneration by native species.
- The Service will investigate mechanisms for maintaining the vegetative corridor between the Currumbenya and Bumberry sectors of the park.

4.4 Introduced Vegetation

An introduced species is defined in this plan as any plant species not native to this 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.

One of the legacies of previous tenures and uses of the park is the number of introduced plant species in the area. Areas associated with creeks and riparian flats where previous grazing and logging camps were focused are most affected. Tables 1 and 2 provide an indication of the relative presence of weed species in each of the park's vegetation communities. The communities most infested with weeds are the White Box Woodland and Red Gum, Yellow Box and Grey Box Forest/Woodland. Within these communities introduced pasture species such as grasses and clovers often dominate the ground layer while blackberries often occur in creeks and smaller drainage lines.

The cleared flats of Beargamil Creek in the park's south-west contain large areas of introduced species, including Paterson's Curse. Blackberry is a common occurrence along many of the park's creeks and is particularly prevalent along Goobang Creek in the Currumbenya sector and the upper reaches of the Balrudgerly Creek in the Hervey Range and Currumbenya sectors. St John's Wort is common along the park's boundaries.

Encroachment of weeds into and out of the park occurs along many of the park's boundaries, particularly those adjoining farmland, but is most noticeable along the north-western boundary. 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. The co-ordination of control programs with Local Noxious Weeds Councils, Forbes and Molong Rural Lands Protection Boards and neighbours will assist in minimising the spread of weeds into and out of the park.

The Central West Region of the Service is currently preparing a Pest Management Strategy which, when completed, will set the overall directions and priorities for dealing with the Region's pest species.

Policies

- Introduced plant control programs will reflect a balance between the need to use the most effective control techniques and a desire to minimise non-target effects. Integrated control programs using a variety of techniques will be adopted where possible.
- The cooperation and advice of other authorities and park neighbours will be sought in implementing weed control programs.

Action

- Weed infestations will be managed to minimise their impacts on the park and their potential to spread to neighbouring lands. Priority for management of weeds will be given to Blackberry, St John's Wort and other species as directed in the Pest Management Strategy.

4.5 Native Animals

The fauna of Goobang National Park was surveyed in February and March 1997 by staff of the Service with valuable assistance from numerous volunteers. A total of 32 sites were sampled from each of the park's vegetation communities, using a subset of the sample sites established for the flora survey. The survey identified 242 species of vertebrate animal (including pests) within the park. No information is available on the diversity or distribution of invertebrates within the park.

An analysis of the distribution within the park of recorded fauna species has indicated that many species are localised, although the most common species are generally widespread throughout the park's vegetation communities. Vegetation structure is often more important than floristics for determining habitat quality and fauna distribution. The lack of clear correlations between fauna communities and flora communities has important implications for managing for the conservation of significant fauna species. Rather than managing on a community basis, management for fauna will need to be undertaken on a species and landscape basis (Faulkner et al., 1997). This has important ramifications for the management of fire and its use as a tool in managing the biodiversity of the park.

Thirty-one mammal species, 154 bird species, 31 species of reptiles and 14 amphibians were recorded in the park. Most of the animals recorded are generally associated with the east coast and Great Dividing Range, but a number of species more commonly recorded from inland New South Wales were also present.

Significant species

Seven species recorded in the park are listed as vulnerable and one species is listed as endangered under the *Threatened Species Conservation Act, 1995*. Of most interest is the recording of what is believed to be a previously unknown specimen of *Pseudomys* - identification of the specimen is being undertaken. Table 5 (page 21) provides brief details on the eight threatened species recorded in the park.

In addition to the eight threatened species recorded in the park, a further 20 endangered or vulnerable species are predicted to occur in the park. Further survey work is needed to confirm the presence of these predicted species within the park.

Table 5: Vulnerable Fauna species

SPECIES	STATUS	HABITAT	FLORA SURVEY COMMUNITY
Mammals			
Koala	Vulnerable	Woodland areas fringing watercourses.	5,6,7.
Pseudomys sp. (Goobang Mouse)	Vulnerable	Rocky Heath Areas	Any areas with diverse variety of plants at the ground level but not dense tall shrubs.
Greater Long-eared Bat	Vulnerable	Dry open woodlands and riparian River Red Gums.	3a,3b,6,7,9.
Yellow-bellied Sheath-tail-bat	Vulnerable	Most wooded habitats.	All communities, particularly those with large roost trees.
Birds			
Regent Honeyeater	Endangered	Open Box and ironbark woodlands.	3a,3b,5,6,7
Glossy Black-cockatoo	Vulnerable	Open woodlands, timbered watercourses with casuarinas.	1,3b,8.
Superb Parrot	Vulnerable	Open Box/ Red Gum woodlands and riverine forest.	1,2,6,7.
Turquoise Parrot	Vulnerable	Open woodlands adjacent to grasslands and heaths.	1,2,4b,5,6,7,8. Favoured by forest edges.

Sixteen woodland bird species recorded in the park have been identified as experiencing declining populations across the Sheep-Wheat Belt (Reid, 1999). Large vegetation remnants such as Goobang, along with smaller remaining patches of habitat, are critical for the survival of these species.

Table 6: Declining woodland birds

Scientific name	Common name
<i>Dromaius novaehollandiae</i>	Emu
<i>Turnix varia</i>	Painted Button-quail
<i>Climacteris picumnus</i>	Brown Treecreeper
<i>Chthonicola sagittata</i>	Speckled Warbler
<i>Acanthiza uropygialis</i>	Chestnut-rumped Thornbill
<i>Aphelocephala leucopsis</i>	Southern Whiteface
<i>Microeca fascinans</i>	Jacky Winter
<i>Petroica goodenovii</i>	Red-capped Robin
<i>Pomatostomus temporalis</i>	Grey-crowned Babbler
<i>Pomatostomus superciliosus</i>	White-browed Babbler
<i>Oreoica gutturalis</i>	Crested Bellbird
<i>Pachycephala rufiventris</i>	Rufous Whistler
<i>Myiagra inquieta</i>	Restless Flycatcher
<i>Artamus superciliosus</i>	White-browed Woodswallow
<i>A. cyanopterus</i>	Dusky Woodswallow
<i>Stagonopleura guttata</i>	Diamond Firetail

As noted earlier, the park contains one vegetation community and numerous flora species at the eastern or western limits of their known distributions and it is therefore not surprising that the recorded fauna of the park follow a similar pattern.. Within Goobang National Park:

- 40 species are at the western limit of their known distribution;
- 20 species are at the eastern limit of their known distribution; and
- 4 species are at the southern limit of their distribution.

The presence of the following ten species in the park represents an extension of their known range in New South Wales:

<i>Limnodynastes terraereginae</i>	Northern Banjo Frog
<i>Oedura monilis</i>	Ocellated Velvet Gecko
<i>Ctenotus allotropis</i>	
<i>Ctenotus taeniolatus</i>	Copper-tailed Skink
<i>Egernia whitii</i>	White's Skink
<i>Lampropholis delicata</i>	
<i>Amphibolurus muricatus</i>	Jacky Lizard
<i>Lichmera indistincta</i>	Brown Honeyeater
<i>Trichoglossus haematodus</i>	Rainbow Lorikeet
<i>Pseudomys sp.</i>	

The preservation of opportunities for species to move between the park and surrounding areas of habitat, and active management to ensure the species remain at viable populations within the park, is required to secure the long term conservation of the park's present fauna. Mechanisms to encourage retention/rehabilitation of

such habitat areas include Natural Heritage Trust funded wildlife corridor projects, projects by local Landcare groups or the use of Voluntary Conservation Agreements between the Service and landholders.

Policies

- The diversity and quality of habitats for native animals occurring in the national park will be maintained.
- Priority will be given to management strategies or programs that favour conservation of endangered and vulnerable fauna species. However, as far as possible, programs will be designed to conserve the full range of native animal species in the park.
- Special attention will be afforded to the requirements of rare and vulnerable fauna in the planning and construction of visitor facilities within the park.
- The Service will promote the establishment and maintenance of wildlife corridors and similar links between the park and off-park areas of habitat for native fauna.
- The understanding and protection of native animals and their habitats will be promoted through the park's interpretation program; for example, the regional significance of habitat and the refuge this offers for numerous significant species.

Actions

- Management actions contained in species recovery plans for species occurring in the park will be implemented.
- To gauge the impact of management actions, the Service will develop and implement a program to monitor key populations of endangered and vulnerable animal species over time.
- Research into the distribution, abundance and habitat requirements of those endangered or vulnerable animals recorded in the park will be encouraged.
- The Service will encourage survey work into the presence of fauna species of significance predicted to occur in the park as well as the park's invertebrate populations.

4.6 Introduced Animals

An introduced species is defined in this plan as any 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.

The fauna survey identified twelve introduced species within the park, three birds and nine mammals, but did not estimate population size or distribution for any of the species. Identified species include the fox, rabbit, pig, goat, cat, European gold finch and common starling.

Cats occur in low numbers and their control is not currently a priority in the park. Any management programs would need to be in conjunction with neighbours. The size and distribution of the fox population in the park is unknown but the animal is suspected to be widespread throughout most of the park's habitats. Of the park's known pests, the fox has the most potential to severely impact biodiversity of the park due to its wide ranging diet and indiscriminate hunting. The impact of foxes on small ground dwelling mammals, such as the undescribed species of *Pseudomys*, is unknown but could be potentially significant. Coordinated control programs involving the Service, Forbes and Molong Rural Lands Protection Boards and neighbours would assist in maximising success rates.

A severe infestation of rabbits was present on the cleared flats associated with Beargamil Creek, however recently completed control works and the ongoing control maintenance programs have substantially reduced the population. It is likely that other areas cleared of native vegetation and supporting a high proportion of introduced ground flora would also support rabbit populations.

Goats, and to a lesser extent pigs, are also priority species for control programs. Aerial culling techniques have proved to be the most effective mechanism for controlling numbers of goats while live trapping and bait stations have proved most successful in controlling pigs. It is important that liaison is maintained with Rural Lands Protection Boards and neighbours in the planning and carrying out of aerial culling operations.

Central West Region is currently preparing a Pest Management Strategy that will set the overall directions and priorities for dealing with the Region's pest species.

Policies

- Feral animal control programs will be designed to avoid impact on non-target species and will be undertaken in cooperation with the Forbes and Molong Rural Lands Protection Boards and neighbours where appropriate.
- Priority will be given to species which have most impact on native animals and the other values of the park.

Actions

- Introduced animals will be controlled and where possible eliminated. Feral animal control programs will give priority to foxes, rabbits, goats, pigs and other priority species as described in the Pest Management Strategy.
- The Service will encourage research into the impact of feral animals on the parks native flora and fauna, particularly endangered and vulnerable species.

4.7 Fire Management

The Fire Management Plan for Goobang National Park is a supporting document to, and has been prepared in parallel with, this Plan of Management. Fire management plans provide direction for park managers on activities required to meet the fire management responsibilities of the National Parks and Wildlife Service. They are based on analyses of fire history, vegetation and fuel patterns and potential threats to life and assets within or adjoining the park. Guidelines for the conservation of the natural heritage of Goobang National Park have been based on current scientific understanding of fire ecology and have been developed using existing data. The collection of additional information will be an ongoing process and fire management concepts will evolve as the understanding of the effects of fire regimes on the natural environment increases.

To date, the major cause of fire in the park is lightning associated with large thunderstorms that generally occur between November and February. The low number of visitors to the area explains the low incidence of human caused fires initiated in the park - only 8% of fires since 1942 are attributed to camp fire escapes. The promotion of recreational opportunities in the park and the resultant increased visitation to the area has the potential to increase the number of human related fire ignitions in the park.

The Fire Management Plan for Goobang National Park provides detailed information and management guidelines regarding the management of fire within the park. It provides a series of strategies for:

- the protection of life and property from the effects of wildfires;
- the prevention of, detection and control of wildfire; and
- the management of the natural and cultural heritage values of the park.

A summary of the objectives proposed within the document are provided below. For additional information on fire management refer to the Fire Management Plan for Goobang National Park.

Policies

- Broad fire management objectives for national parks are:
 - to prevent the occurrence of human caused unplanned bushfires on the park;
 - to suppress unplanned bushfires occurring on the park;
 - to minimise the potential for spread of bushfires on, from, or into the park;
 - to protect from bushfires, persons and property on, or immediately adjacent to, the park;
 - to manage bushfires to avoid the extinction of all species which are known to occur naturally within the park;
 - to protect from damage by bushfires all Aboriginal sites, historic places and culturally significant features known to exist within the park.

- Fire management objectives specific to Goobang National Park are:
 - to protect the northern section of the Hervey Range and the Crokers Range area from unplanned bushfire for at least 15 years;
 - to protect White Cypress Pine and Bulloak Woodlands from bushfire;
 - to maintain large areas of foraging habitat at age classes of 15 - 30 years for the Glossy Black Cockatoo;
 - to protect known habitat areas of *Pseudomys sp.* from bushfires until research on its fire ecology is undertaken; and
 - to protect known habitat areas of threatened plant species from bushfires until research on their fire ecology are undertaken.
- Aboriginal scarred trees within the park (refer Section 5.1.2) will be afforded adequate protection during any fire management planning or hazard reduction activities.
- The promotion of responsible visitor behaviour in fire prevention will be highlighted in park interpretation and promotional material.

Actions

- Actions within the Fire Management Plan for Goobang National Park will be implemented.
- In order to protect Aboriginal scarred trees from fire damage, fuel loads around their bases will be reduced on an as required basis in consultation with the Aboriginal community.

5. GOOBANG NATIONAL PARK: ITS CULTURAL HERITAGE

Cultural heritage includes both indigenous and non-indigenous histories. It also reflects the importance of the area to local and regional Aboriginal and non-Aboriginal community who have physical and spiritual associations with the park. It also incorporates the views and expectations of the community who have vested interest in the aesthetic, historic, scientific and social significance of the park for present and future generations.

The information in this section of the Plan is taken from a series of reports prepared by staff of the Service's Cultural Heritage Services Division. The reports are based on extensive literature reviews, survey work and oral histories undertaken during 1997/98.

5.1 Aboriginal Cultural Heritage

5.1.1 Aboriginal Associations with Goobang National Park

Anthropological research has been conducted with the Aboriginal community at Peak Hill who refer to themselves as the Bogan River Wiradjuri (*Yuradjurray*) people. In a letter to the Service in 1994 the Peak Hill Local Aboriginal Land Council stated:

“The area known as the Hervey Ranges is an important land formation in our Aboriginal community, the Wiradjuri Bogan River people, and our culture. It's traditional name is Goobang, which forms our traditional boundaries in the east. It can be seen from 50-60 kms west of Goobang on some of our most significant sites”.

The territory of the Bogan River Wiradjuri extends down river (to the north) along the Bogan River as far as Tottenham and Dandaloo Station and south to the source of the river near Goonamble and Parkes. The headwaters of the Bogan River include creeks of the Herveys Range, within Goobang National Park.

The Bogan River served as a major travelling route for traditional people and allowed a great deal of interaction between Bogan River Wiradjuri and other nearby groups. Records exist of up to 200-300 people camping and attending ceremonies, often in places as distant as the present townships of Brewarrina and Cobar. Not surprisingly, there are extensive similarities in language between these groups and the Bogan River Wiradjuri. The Wiradjuri language was one of the largest language groupings being spoken over much of the central southern region of New South Wales. Inter-marriage with other groups, such as the neighbouring Wongaibon (Ngiyaampa) group, also took place.

Patterning in the archaeological record suggests that pre contact Aboriginal occupation and use of the Hervey and Curumbenya Ranges would have been widespread with some areas more intensively used or revisited than others.

Extended and repeated occupation appears to have occurred on the lower slopes and creek flats in dry forest and open woodland environments on the east and west of the northern Hervey Range. Similarly, undulating country in the parks south west and south east is likely to have been a significant and intensively used occupation area. Gingham Gap appears to have been a well used travel route through the ranges. Limited but repeat occupation of the elevated plateau of Greenbah Creek appears to have been focused on springs and deeper water holes. Extended dry periods may have resulted in peaks in occupation when the springs of the ranges became valued water sources.

There is oral evidence that the ranges were used for ceremonial purposes. The park may also have included mythological sites without physical evidence of occupation. Today, the ranges remain significant as an important landmark in the traditional country of the Wiradjuri people.

Policies

- The Service will maintain ongoing consultation with Local Aboriginal Land Councils and the Aboriginal community in regards to the development and planning of park management activities.
- The involvement of Aboriginal people with cultural tours of the park aimed at promoting Aboriginal culture and traditional use of the area will be encouraged.
- In consultation with the Service's Sites Officer and the Local Aboriginal Land Council, Aboriginal people will be encouraged to carry out activities in the national park related to maintenance of traditional links to the land.
- Oral history projects to document Aboriginal attachments to Goobang National Park will be encouraged.

Actions

- The Service will liaise closely with the Local Aboriginal Land Councils and communities in relation to park management activities.
- An information archive related to the history of the park and Aboriginal connections to it will be established.

5.1.2 Archaeological Sites

An archaeological survey of Goobang National Park was undertaken by the National Parks and Wildlife Service and members of the local Aboriginal community. The survey identified substantial evidence for widespread and intensive occupation of the park, mostly concentrated on the flats east of the Hervey Range escarpment and in the central and southern Curumbenya Range. A range of sites including open camp sites, scarred trees, a stone arrangement, quarry and an axe grinding site were

identified and over 900 stone artefacts were recorded. Archaeological sites are important to Aboriginal communities as they are a testament to their culture's great antiquity.

A total of 30 open campsites were recorded during the survey. The campsites appear to represent both short and long term occupation. These sites represent use of a variety of environments within the park including footslopes and elevated sections of the Hervey and Curumbenya Ranges. Many of the open campsites surveyed were on access trails within the park and were therefore in poor condition due to erosion and vehicle damage. However, access trails are present in only a very small percentage of the park and it is assumed most areas of archaeological potential have not been adversely impacted.

Twenty eight scarred trees were identified during the survey, regarded as a reasonably low number for a heavily wooded environment. This is a reflection of the survey coverage achieved during the survey and the impacts over time of fire and forestry activities on this site type. In addition, if traditional activities are regarded as having ceased in 1850 - 1870 any scarred trees would generally be more than 100 years old, so it is not surprising that so few scarred trees were recorded.

The axe grinding groove site, in the Hervey Sector, contains 13 elongated grooves across three sections of boulders and shelving. The site is in good condition, is regarded as an extremely rare site in the Central West region and is highly significant since its recording in the park is unique. The site is located reasonably close to a well used park road and this has the potential to result in vandalism of the site.

A total of 928 artefacts were recorded during the survey including 60 flake tools, 278 whole flakes, 278 flaked pieces and 42 cores. The artefacts were dominated by items made of locally available material such as volcanics and quartz. A quarry showing extraction of volcanic stone identified as rhyolite was recorded within the park during the field survey. Items made of imported material such as tools used in plant/seed grinding and heavy duty chopping were less abundant. The dominance of items made of local material suggests that the Ranges may have been an important source of material for people in the surrounding area.

Policies

- The Peak Hill, Dubbo and Wellington Local Aboriginal Land Councils and other relevant Aboriginal community organisations will be consulted and actively involved in the management of Aboriginal sites and places of importance to the Aboriginal community in the national park. Their involvement in broader park issues will also be sought.
- Aboriginal sites will be afforded proper care, preservation and protection.
- All works with the potential to impact on Aboriginal sites will be preceded by an archaeological assessment and include a monitoring program to assess the impacts of the activity.

- Interpretation of Aboriginal sites to the public to encourage an understanding and awareness of Aboriginal culture will be planned, developed and carried out in collaboration with the local Aboriginal community.
- The location of Aboriginal sites will not be publicised except where:
 - the agreement of the relevant Local Aboriginal Land Council and other relevant Aboriginal community organisations has been obtained;
 - a conservation study has been prepared and any management works necessary to protect the site from damage have been implemented; and
 - the site will be interpreted to promote public knowledge and appreciation of Aboriginal culture.

Actions

- An ongoing program of site recording will be developed in collaboration with the local Aboriginal community.
- Liaison will be undertaken with the Aboriginal community to determine which if any Aboriginal sites within the park will be interpreted to visitors.
- The Service will advise the relevant Local Aboriginal Land Council of major work proposals within the park so that comments on potential impacts on cultural sites may be provided.
- The park's fire management plan will incorporate protection and monitoring components related to pre-contact Aboriginal sites (refer section 4.7).
- In conjunction with the Aboriginal community, the Service will develop an ongoing program of site monitoring which will assess the impacts of natural forces, recreational use and park management activities on Aboriginal sites within the park. Appropriate action will be taken to alleviate any identified adverse impacts.

5.2 Historic Places

The area surrounding the park was first traversed by non-Aboriginal people when Oxley passed south of the park in 1817 and sighted and named Herveys Range. In April 1835 Major Thomas Mitchell travelled south of Herveys Range and came into contact with the local Wiradjuri people at a site thought to be on Beargamil Creek. During his time in the area he climbed and named two prominent peaks - Mt Juson and Mt Laidley. While the names no longer appear on contemporary topographical maps of this area, their location as given in Mitchell's diaries means it is probable that both peaks are within the park.

Squatters soon followed Mitchell's path and lost no time in utilising the rich grassy plains. By the end of 1835 stations were established to the north, east and west of Hervey Range. The Wellington Pastoral District incorporated the Hervey and Croker Ranges and by 1848 over eighty stations were listed within its boundaries.

Throughout this time the Hervey and Croker Ranges were an important local timber source and parts of both areas were reserved for timber protection purposes in the late 1800s. The earliest reservations of the Bumberry, Wanda Wandong and Hervey Range State Forests occurred in 1881, 1879 and 1879 respectively. Subsequent additions were made to both Wanda Wandong and Hervey Range State Forests so that significant portions of the Hervey and Croker Range were within these areas. The date for commencement of sleeper cutting in the ranges is not known although it has been a spasmodic operation since late last century. The years after World War II saw the greatest volume of sleepers removed from the ranges, with over 115,000 super feet taken. By 1986 trees suitable for sleeper cutting were limited to inaccessible locations and this, coupled with a much reduced demand for timber sleepers, meant that viability of operations had significantly decreased. The park still contains extensive evidence of timber cutting. The existing network of trails has much to do with the logging history of the area and a number of old logging camps and log dumps occur in the park, usually in the form of cleared areas with timber off cuts spread on the ground.

The ranges were also much valued by apiarists although the detailed history of their operations in the area now within Goobang National Park is not known. A number of apiarist activities persist in the park today (section 6.5). A limited amount of grazing was also undertaken on areas within the park.

Policies

- The provisions of the Burra Charter (Australia ICOMOS) will guide the management of the cultural heritage of Goobang National Park.
- An ongoing program of site recording will be undertaken in collaboration with the local community.
- Oral history projects to document non-Aboriginal attachments to Goobang National Park will be encouraged.
- A representative sample of physical remains of the logging history of the park will be conserved. Some sites may be interpreted to park visitors (section 6.2).

Actions

- The Service will determine a representative sample of logging sites to be conserved.
- The impacts of natural forces and people on these sites will be monitored.
- Conservation plans will be prepared for those sites which require active maintenance or other work.

6 GOOBANG NATIONAL PARK: USE OF THE AREA

The national park will be managed to ensure that its use, whether by the general public, special interest groups, National Parks and Wildlife Service managers or other authorities is appropriate and consistent with the *National Parks and Wildlife Act 1974*, NPWS policies and the management objectives and policies of this plan of management.

The major categories of use that may be appropriate within Service areas are:

- recreation in a natural setting;
- environmental education and the promotion of natural and cultural heritage conservation;
- scientific 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 Goobang National Park is indicated below.

6.1 Recreation Opportunities

With the park gazetted only relatively recently, the Service has had limited opportunities to undertake visitor monitoring activities however observations by Service staff indicate that the total number of visitors to the park is very low (< 5,000 per annum). Caloma Trig, Gingham Gap, a grassy area which is used for camping in the north-east of the Wanda Wandong sector of the park, and an area adjoining the Peak Hill - Baldry Road appear to be the most visited sites. Activities such as bird watching and bushwalking are also occasionally undertaken in the Wanda Wandong and Curumbenya sectors of the park. Little is known about seasonal variation of visitation but peaks during school holiday periods and the cooler months of spring and autumn are likely.

The park's proximity to several large country centres and the popular Victoria to Queensland tourism thoroughfare of the Newell Highway provide it with a potentially large recreational catchment. Additionally, a proportion of visitors can be expected to originate from Sydney given the park is under one hour from the regional tourism destination of Dubbo.

In a broad regional context the park is one of only several national parks and nature reserves within the central west of New South Wales - the other major national parks being Weddin Mountains, Conimbla, Nangar and Warrumbungle. Goobang is by far the largest of these parks at approximately twice the area of Warrumbungle National Park. Each of these parks offer recreational opportunities for visitors, dependent largely on the natural landscapes and the types of access and facilities provided.

The Weddin Mountains offers two basic camping areas, day use facilities and several day walks. Nangar National Park currently has no recreational facilities, and Conimbla National Park offers low key day use and walk-in camping opportunities. Both parks are accessed by unsealed roads passable in dry weather only and

receive a very small number of visitors per annum. By contrast, Warrumbungle National Park receives over 70,000 visitors per annum and is well developed with sealed access and a number of developed camping areas offering amenities and powered and unpowered sites. Warrumbungle National Park also offers opportunities for day and overnight bushwalking. All of these parks, including Goobang National Park, incorporate high ranges and are biodiversity refuges in largely cleared surrounding landscapes.

A combination of widespread and significant conservation values, and topographical and soil constraints on vehicle access, provide a strong case for Goobang National Park to be managed for a low level of recreational use. Access will be maintained primarily at 4WD standard although some 2WD access will be provided where environmental constraints permit. Camping and day use facilities with basic and minimal facilities will be provided as well as a limited number of walking tracks. Importantly, management of Goobang National Park at these standards of access and facilities will complement those recreational opportunities available in other national parks and natural areas in the region as well as those provided in nearby towns.

Policies

- Outdoor recreation and environmental education opportunities in the park will be:
 - consistent with the protection of natural and cultural values;
 - directed towards an appreciation and understanding of the natural and cultural heritage of the park; and
 - complement those opportunities available elsewhere in the region, particular within other national parks of the central west.
 -
- Open fires will be permitted only in designated fire places.
- Visitors will be encouraged to use gas and portable fuel appliances in lieu of solid fuel open fires.
- No solid fuel fires will be permitted in the Curumbenya sector of the Park.
- Any new works and activities proposed in the park will be preceded by the appropriate environmental impact assessment process according to the prescriptions of the *Environmental Planning and Assessment Act, 1979*.

Action

- An education program to promote to use of gas and portable fuel appliances rather than having open solid fuel fires will be developed and implemented.
- Signposting will be established as needed to advise about fire restrictions.

6.1.1 Vehicle Access

Goobang National Park may be reached from a number of roads. The Newell Highway parallels the park some twenty kilometres to its west while the Orange - Parkes road bisects the outlying Bumberry sector of the park. From these two main thoroughfares a number of arterial public roads of 2WD gravel standard pass through the park. The Parkes - Wellington road intersects the park at the northern end of the Curumbenya Range while the Peak Hill - Baldry road crosses the park at Gingham Gap. Both are public roads and are small exclusions from the park. In the north the 2WD bitumen/gravel Tomingley Road abuts the park's northern boundary for approximately seven kilometres. From each of these arterial roads, a number of park roads provide vehicle access into the park itself (see map, centre pages).

The network of roads and trails in the park at the time of gazettal is a result of past uses of the park, primarily small scale logging and fire management activities as well as recreational four wheel driving. The National Parks and Wildlife Service has recently undertaken maintenance work on the main park roads. In most cases topographical and soil constraints limit these roads to 4WD standard. However, 2WD access will be provided from the northern boundary to a small car park (for around 5 cars) at the start of the Caloma Trig walking track and from the south to the Greenbah camping and picnic area.

Due to the topography and soils of the park, all the existing park roads become impassable after a small amount of rain. Large scale and expensive road construction works would be required to establish and maintain all weather access roads in the park. Accordingly, wet weather closure of park roads will be required to avoid vehicle strandings, erosion resulting from use in wet weather and expensive track maintenance and repair works. Additionally, access to the park may need to be restricted on days of extreme fire danger. A public access system with a limited number of entry points to the park will greatly assist in managing such wet weather and high fire danger closures. The proposed system of park roads and access points are shown on the map (centre pages).

In addition to the maintained park roads there are a number of informal four wheel drive trails throughout the park. These trails have been established by previous use of the area and are often wheel ruts on the natural ground surface rather than formally constructed trails. They are often degraded from a lack of maintenance. These trails have also assisted access throughout the park for people undertaking illegal activities such as off road motor bike riding, wood collection and pig or kangaroo hunting. A rationalisation of vehicle trails is required to reduce environmental impacts and assist in reducing illegal activities while retaining an appropriate diversity of recreational opportunities.

Tourism Drives

The proximity of the park to the Newell Highway, combined with the existence of several through roads within the park, provide opportunities for two tourism drives which incorporate both park and public roads.

The first drive passes through the Hervey sector of the park. The route starts at Parkes and includes the Parkes - Wellington road, the Hervey track and concludes at Peak Hill by way of the Peak Hill - Baldry road. The Hervey Track is accessible by two wheel drive vehicle in dry conditions, takes approximately 2 hours to travel, and travels through a range of the parks vegetation communities and landscapes. The Hervey track is not suitable for caravans.

The second route, requiring a 4WD vehicle, can be undertaken as either an extension of the first tourism drive or as a stand alone experience. The park is entered at Gingham Gap, after travelling the Hervey track or arriving from Peak Hill on the Baldry road, with the route passing through the Wanda Wandong sector before joining the Tomingley Road and continuing to Dubbo. The Sawpit Gully track through the Wanda Wandong sector is suitable for 4WD vehicles only and takes about 3 hours to travel. The Sawpit Gully track also passes through a range of vegetation communities and landscapes and offers scenic views across both the park and, by visiting Caloma Trig, the surrounding agricultural plains.

Both drives provide opportunities for visitors to experience the park and gain an understanding of its natural and cultural heritage values. The routes incorporate proposed day use areas, and a camping area is proposed near the northern edge of the park. Importantly, the tourism routes are likely to increase the length of stay of tourists and result in flow-on benefits to the tourism industry of the surrounding region.

Policies

- Vehicles will only be permitted on the park roads shown on the map (centre pages), unless otherwise authorised for emergency or management purposes.
- The park road system will be maintained to a minimum of 4WD gravel standard. Sections of the park road system may be upgraded beyond this standard dependent on levels of use, suitability of soil and topographical conditions and the intended recreational setting of the site or area.
- As wet weather and fire danger conditions dictate, park roads may be temporarily closed to public use.
- The two tourism drives through the park will be established and signposted. Interpretation signs may be erected at selected locations (see section 6.2).
- The Service will liaise closely with the various Bush Fire Management Committees in assessing trails for management and strategic fire control.

Actions

- Gates, other vehicle barriers or suitable signage will be erected at appropriate access points throughout the park to restrict public vehicles to designated park roads.

- The Service will establish the proposed tourism drives through the park and liaise with the appropriate tourism body regarding their promotion. An interpretive drive through the Hervey sector will be established.
- A program to regularly monitor the condition of all vehicle trails within the park will be established.
- The Service will liaise closely with the RTA to have speed limit, wildlife crossing and “narrow road” signs placed where main roads transect the park.

6.1.2 Camping and Day Use

Camping Areas

In the past, Goobang National Park received a degree of informal camping at sites where no facilities or managed access is provided. The most visited site was located in the north eastern corner of the Wanda Wandong sector of the park, approximately one kilometre south of the Tomingley Road. The site comprises a large grassy area within an open woodland that has been partially cleared by previous camping activities. Fire rings were obvious and a lack of dead wood on the ground appears to indicate the area receives a steady level of use. The easy accessibility of the area suggests that a majority of the users of the site originate from nearby Dubbo.

A number of informal and little used camp sites were also evident along the Sawpit Gully Track adjacent to Greenbah Creek and nearby locations in the Wanda Wandong sector of the park. The Greenbah Creek site will be formalised to provide a small camping area. Vehicle-based camping will not be permitted at the other locations.

A primary and secondary schools field study centre at nearby Wangbangalang has expressed interest in using the northern area of the Wanda Wandong sector for overnight environmental education field trips. The existing site offers opportunities to cater for small to medium group camping of this type.

Formalised camping facilities will be provided at Wanda Wandong and Greenbah and will cater for the predominant demand for car-based camping. The Service recognises that there is also occasional demand for more remote, non-formal camping. To meet this demand, pack camping will be allowed throughout the park in locations more than 200m from camping areas, picnic areas and public access roads.

Day Use Areas

The proximity of the park to the Newell Highway and several townships, combined with relatively easy access to the park, provides potential for the park to become a significant day use destination in the region. Currently however no day use facilities are provided within the park and many of the parks day use activities are undertaken where major roads intersect the park.

Caloma Trig is one of the most visited sites within the park. It is accessed by a rocky 4WD track and comprises a small poorly defined clearing used for car parking and a short walking track leading down to a lookout. Redesign of access is needed. The lookout is at the edge of a small cliff and offers expansive views to the south, west and north over the adjacent agricultural plains. No barriers are provided at the lookout and visitor safety issues will need to be addressed in the long term management of the site.

Day use facilities will be needed adjacent to the Wanda Wanda and Greenbah Creek camping areas to provide for general visitors and people undertaking walks from these locations. Consideration will also be given to providing a day use facility adjacent to the Parkes-Orange Highway in the Bumberry sector.

Policies

- The following camping opportunities will be provided within the park:
 - Wanda Wandong Camping Area will be established through upgrading the existing informal camping area in the north east of the Wanda Wandong sector. Defined 2WD access, parking areas and camping sites designed to cater for individual parties or larger (school) groups will be provided. Basic toilet facilities and fire places will also be provided but no power or showers. A short interpretive loop walk will be constructed to provide an understanding and appreciation of the areas natural and cultural heritage.
 - Greenbah Creek - a small camping area (around 6 sites) at the southern end of the Wanda Wandong sector. 2WD dry weather access, parking areas, basic toilets and fire places will be provided.
 - Pack camping – permitted more than 200m from car-based camping areas, picnic areas and public access roads.
- The following day use sites will be provided:
 - Caloma Trig - a 4WD track will provide access to a defined car park just north of the Trig. A walking track will lead to the lookout point where a small fenced viewing platform will be constructed. Two picnic tables will be provided near the car park.
 - Wanda Wandong – a separate day use area adjacent to the Wanda Wandong camping area, with basic toilets, picnic tables and barbecues.
 - Greenbah Creek – a small day use area adjacent to the Greenbah Creek camping area, with parking, picnic tables and fire places.
 - Bumberry - the desirability of providing a small day use area adjacent to the Parkes - Orange Highway will be assessed. Picnic tables, barbecue facilities and park orientation information may be provided. This will be done in conjunction with the RTA and Parkes Shire Council.

- Portable fossil fuel driven generators and chainsaws will not be permitted in camping or day use areas.
- The Greenbah Creek camping area may be closed during adverse weather conditions.

Actions

- Site design and construction will be undertaken for the Wanda Wandong camping and day use areas, the Caloma Trig Day Use Area and the Greenbah Creek camping and day use areas.
- An assessment will be undertaken of the need for and management implications of establishing a day use area in the Bumberry sector of the park.

6.1.3 Bushwalking

There is no formal system of walking tracks in the park although the area is known to have been used for this purpose. The diversity of vegetation and landscapes in the park and the opportunities for striking views over the park and surrounding country, make the area appealing for bushwalkers. The park's large area allows walkers to experience solitude and a sense of remoteness while gaining an appreciation of the areas natural and cultural values.

The diversity of day use and camping sites proposed for the park provides the Service with the ability to offer a range of walking tracks to meet the demands of the park visitor. It is proposed that walking tracks be associated with several of the proposed camping and day use areas. These walking tracks are either destination oriented, providing access to particular points of interest in the area, or serve an interpretive purpose in areas of high use.

Old vehicle tracks present an opportunity for a very scenic medium distance loop walk to Burrabadine Peak from the Greenbah Creek Camping Area and a day walk to Caloma Trig from the Wanda Wandong Camping and Day Use Area. Shorter walks will also be provided at the Wanda Wandong area and Caloma Trig Day Use Area.

The parks size offers opportunities for experiential walks that traverse more undeveloped areas of the park, particularly in the Curumbenya sector. With the intensive land use of the central west of New South Wales and associated widespread clearing of natural landscapes there are limited opportunities for this style of walking in the region.

Policies

- An interpretive loop walking tracks will be established from the Wanda Wandong camping area. It will up to 2 km in length and traverse a variety of vegetation communities and natural landscapes.

- A short walking track of approximately 300 metres in length will be constructed to a lookout west of Caloma Trig. Fencing will be provided at the end of the track.
- A loop walk of approximately 6 km will be provided to Burrabadine Peak from the Greenbah Creek Camping area.
- A walking track (approximately 5 km in length) following closed vehicle trails will be signposted from near the Wanda Wandong Camping Area to the Caloma Trig Day Use Area. A small car park (for about 5 cars) will be provided at the beginning of the track.
- Management trails within the Curumbenya sector of the park which can provide loop walks will be promoted for those wanting longer walks.
- Pack camping will be allowed throughout the park in locations more than 500m from public access roads, camping and picnic areas. It may be prohibited in certain locations if impacts are found to be unacceptable.

Actions

- Detailed route selection, erosion control and construction will be undertaken as needed to provide the walking tracks outlined above.

6.1.4 Bicycle Riding

The riding of bicycles in areas managed by the National Parks and Wildlife Service is recognised as an appropriate activity to facilitate an understanding and enjoyment of the natural environment. It is important that recreational cyclists can enjoy opportunities available for bicycle riding in Goobang National Park without compromising the experience of other park users or adversely affecting natural and cultural values.

The park currently receives a very low amount of use by mountain bike riders. However cycling is rapidly increasing in popularity and, with the gazettal and subsequent promotion of the park, it is expected that the amount of cycling in the park will increase. The standard of park roads and management trails in Goobang National Park requires the use of bicycles with off road capabilities, such as mountain bikes. The use of these types of bicycles may result in a degree of off track use by irresponsible visitors.

Policies

- Cycling will be permitted on park roads and management trails within the park.
- Cycling will not be permitted on walking tracks within the park.

- Periodic closure of park roads or management trails to bicycle riding may occur due to wet weather or fire danger. Such closures will be consistent with closure of vehicular access to the park (Section 6.1.1).
- Subject to the level of mountain bike use of the park, the Service will prepare visitor information, such as information leaflets, suggesting preferred cycling routes.

6.1.5 Horse riding

Prior to gazettal the park was infrequently used by a small number of local horse riders. Most use appears to have centred on the four wheel drive trails to the west of the Hervey Range sector of the park.

Horse riding can cause erosion, damage to Aboriginal sites and dispersal of weeds with associated high rehabilitation costs. It is essential that horse riding be limited to appropriate trails and environments where potential impacts may be minimised.

It is proposed that the western management trail (west of Caloma Trig) continue to be available for use by local horse riders. This trail, however, traverses private property as well as the national park. The permission of local landowners must also be obtained by those wishing to use this trail.

The Spring Creek Trail within Goobang National Park has been identified as the most appropriate venue for horse riding within the park, based on existing use patterns. This trail is the main access route through the Hervey sector of the park. Whilst there is currently no demand for expanded horse riding activities within the park, the Service recognises the potential for this to develop. Demand for horse riding opportunities beyond those explicitly catered for in the plan will be dealt with on a case by case basis, subject to a permit system under the Service's Draft Recreational Horse Riding Policy.

Policies

- Horse riding will be permitted on the western management trail and the Spring Creek Trail in the park (see map, centre pages).
- Trails may be closed to riding if necessary for environmental protection reasons.
- Overnight camping of horses will not be permitted in the park.

Action

- The horse riding trails will be monitored for environmental impacts.

6.2 Promotion and Interpretation

The park's proximity to several large country centres and the popular Victoria to Queensland tourism thoroughfare of the Newell Highway provide it with a potentially large recreational catchment. Additionally, a proportion of visitors can be expected to originate from Sydney given the park is less than one hour from the regional tourism destination of Dubbo. The forward planning associated with people holidaying from Sydney, and interstate in particular, has implications for the New South Wales and interstate promotion of the park.

Promoting public awareness of the National Parks and Wildlife Service's conservation responsibilities, the natural and cultural values of the park as well as appropriate recreational opportunities is a major aspect of visitor use management. Increased public awareness and understanding can assist with the achievement of natural and cultural heritage management and enhance visitor enjoyment of the park.

Existing facilities and programs that promote public awareness and appreciation of the park are limited to information in a Newell Highway tourism booklet, a Service produced brochure that offers general park information, and strategically placed "Goobang National Park" signs at park entrances. Currently, there is a lack of visitor orientation and directional signs in the park.

The park is being increasingly used for environmental and cultural education. Wangbangalang Field Studies Centre has expressed an interest in using the Hervey Range sector of the park. Increasing use of the park by primary and secondary schools in Dubbo can be expected once facilities such as the proposed Wanda Wandong camping area are established. The Peak Hill Aboriginal community has indicated an interest in conducting cultural tours in the park.

Policies

- Understanding and appreciation of the natural and cultural values of the national park by the public will be promoted and intergraded into all aspects of the parks management. The following themes will be emphasised in interpretation programs:
 - the Aboriginal cultural value of the park, past and present uses of the area and the parks importance to the contemporary Aboriginal community;
 - the parks history, including prior land uses such as logging, apiary and grazing;
 - vegetation communities, their reservation status and habitat value for native fauna;
 - the geographical position of the park at an ecotone;
 - the park's role as a large area in a mosaic of habitat remnants across the landscape and the importance of off-park conservation;
 - the impact of fire on the park's ecology and the need for responsible visitor behaviour in assisting with fire prevention; and

- the appropriate recreational and educational use of the park, and the need for occasional temporary closure of the park due to wet weather or high fire danger.
- Interpretation of Aboriginal culture and sites will be developed collaboratively with the relevant Aboriginal people and included in signage, at visitor use areas, brochures/ information sheets and in educational themes,
- Promotional material and interpretive programs will be designed to promote care and an appreciation for the environment, particularly through responsible visitor behaviour, and thereby assist the Service in protecting natural and cultural heritage values.
- Promotional material and interpretive programs will be designed to promote visitor safety and will highlight issues such as the lack of potable water in the park, high summer temperatures and dangers to park visitors through the irresponsible use of fire.
- Directional signs to assist visitors in accessing the park will be provided.
- Park orientation information to assist visitors with determining their location in the park and proximity to nearby park attractions will be provided both in the park and at selected off park visitor information points. Specific attention will be paid to indicating the standards of park roads.

Actions

- As resources allow, interpretive facilities will be provided at the following locations:
 - An interpretive loop walk at the proposed Wanda Wandong Camping Area incorporating a variety of nearby vegetation communities where the communities, their reservation status, habitat value and their relationships and importance to the past and present Aboriginal community may be interpreted;
 - Caloma Trig where the context of the park within regional land use patterns may be explained leading to an explanation of the park's role as a large area in a mosaic of habitat remnants across the landscape, its position at an ecotone and the importance of off-park conservation;
 - The walking track to Burrabadine Peak where the park's Aboriginal cultural value, geology and landscape, soils and their impact on the distribution of vegetation communities may be interpreted; and
 - The Hervey Trail where facilities for an interpretive drive through the Hervey Sector will be provided. It is anticipated that for 2WD visitors this drive and associated day use stops will constitute the vast majority of their visit to the park and it is therefore appropriate to cover, as natural features allow, the range of important interpretive messages detailed in the above policies section.

- Directional signs will be provided at the following intersections on the two main highways that pass to the west and south of the park:
 - Newell Highway and the Tomingley Road;
 - Newell Highway and the Peak Hill - Baldry Road; and
 - Parkes - Orange and Parkes - Wellington Roads.
- Additional directional signs, including an indication of the standard of the park road (2WD or 4WD gravel), will be provided at the following locations where park roads meet the three arterial roads that bisect or adjoin the park:
 - Tomingley Road and Sawpit Gully track;
 - Peak Hill Baldry Road and Sawpit Gully track;
 - Peak Hill - Baldry Road and Hervey track; and
 - Parkes - Wellington Road and Hervey track.
- Park orientation information will be provided at the Wanda Wandong Camping Area, Greenbah Creek Camping Area and Bumberry Day Use Area.
- Orientation information will also be provided at the Caloma Trig Day Use Area.
- The Service will liaise with appropriate tourism organisations regarding the provision of park information at tourism offices in Sydney, Melbourne, Dubbo, Parkes and at selected locations along the Newell Highway. Similar information will be made available at the Service's Forbes office.
- A park brochure will be produced to promote the characteristics and importance of the park.

6.3 Neighbour Relations

An important aspect of the Service's public awareness program is to keep members of the local community, neighbours, Shire Councils and other government agencies informed of the park's management programs - particularly regarding fire management and weed and feral animal control. Goobang National Park has a high number of neighbours, further emphasising the need for effective communication with this group in the community. A relatively new subdivision has established closely settled hobby farms and uncleared rural residential blocks adjacent to the parks northern boundary on the Tomingley Road. Potential issues to address with neighbours include fire management control measures, exotic plants and illegal grazing or woodcutting within the park.

Policy

- Emphasis will be placed on explaining park management programs and actions to the local community, neighbours and stakeholders.

Action

- The Service will explain park management programs through the timely issuing of media releases, information sheets and through ongoing planned discussion with neighbours and other interest groups.

6.4 Research

The National Parks and Wildlife Service does not currently have the resources to undertake long term monitoring or research and relies heavily on work from outside institutions. Despite the relatively recent declaration of Goobang National Park, the Service has to date coordinated a number of research projects into the natural and cultural values, and appropriate management, of the area. These projects have offered invaluable information for incorporation into this plan of management. The need for research into park management issues has been identified in a number of sections in this plan. To this end, a prospectus identifying Service priorities for research will be prepared to encourage involvement of other organisations and individuals.

Research projects to be undertaken in the park are required to be licensed by the National Parks and Wildlife Service.

Policies

- Goobang National Park will be available for appropriate research.
- Service conducted research will aim to provide information on 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 undertake research that provides information of direct use 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 area.
- Short term research structures must be placed in locations which will minimise their visual impact. Such structures must be removed upon completion of the research project.
- Research relating to Aboriginal interest and values associated with the Park will involve the Aboriginal community in regard to the design and implementation of the research and the use of the research information.

Actions

- A prospectus will be prepared as a guide to preferred research projects in the park, particularly those of direct relevance to management, and will include:
 - distribution of threatened flora species known to occur in the park;
 - additional surveys of native fauna, particularly threatened species predicted to occur within the park, the park's invertebrate populations and the habitat management requirements of threatened species;
 - distribution, abundance and habitat requirements of threatened species;
 - the impact of feral animals on the parks native fauna, particularly it's threatened species;
 - research into the total grazing impact by native fauna and feral species on the vegetation of the park will be undertaken;
 - fire management related research as described in the Draft Fire Management Plan such as:
 - flora and fauna responses to fire, especially threatened species,
 - increased knowledge of the park's fire history, and
 - animal refuges, post fire dispersal and recolonisation requirements;
 - in consultation with local Aboriginal communities, surveys of Aboriginal sites and areas of cultural significance such as:
 - a more representative survey sample of the Curumbenya sector;
 - the western base of the Hervey Range escarpment to better assess the presence of shelters; and
 - qualitative and quantitative visitor surveys as well as research into social and environmental impacts of visitor use.

6.5 Management Operations

Management of the park is undertaken by staff of the Central West Region.

Three Public Roads traverse the park but are not part of the lands gazetted as Goobang National Park. Two of these are arterial roads (Parkes - Wellington and Peak Hill - Baldry Roads) and provide access through the park while another provides access through a private property to the park's south western boundary near Beargamil Creek. The public road to the park's boundary is unformed and on the natural ground surface and linked the Parkes - Orange road to the old Beargamil settlement. The settlement no longer exists and degazettal of the public road through the park will be sought.

In addition to the above Public Roads and the park road system described in Section 6.1.1 and illustrated on the map (centre pages), there is a network of trails in Goobang National Park which were in existence when the park was gazetted and are a result of maintenance by NSW State Forests (in the case of gravel trails) or ongoing use by visitors to the area. The management track system is also used by scientists to access research sites and by apiarists. Five licences for apiary activities have been issued to apiarists who were using the area prior to gazettal of the park.

Sixteen individual sites, located immediately north and south of Gingham Gap, in the north-eastern Wanda Wandong sector and Bumberry sector of the park, are used by apiarists.

A number of powerlines cross the southern part of the Wanda Wandong sector of the park near Gingham Gap. An area approximately thirty metres wide has been cleared underneath the powerlines and a 4WD natural surface access trail established for maintenance purposes. At Gingham Gap a number of rough access trails lead off the Sawpit Gully track to the powerlines. Powerlines also pass through the Bumberry sector of the park south of the Parkes - Orange highway.

All the management trails within the park are of 4WD standard on either natural surface or gravel pavements. Limited work to upgrade or maintain management trails will be required. Management trails are shown on the plan map. In addition to these trails there are boundary fire trails along the eastern boundaries of the Wanda Wandong, Hervey and Curumbenya sectors and most of the western boundary of the Wanda Wandong sector. Other trails remaining from former use of the area will be closed and allowed to revegetate or used as walking tracks. Erosion control will be needed on a number of these. Public vehicle access is not permitted on park management trails however they are available for cycling (refer section 6.1.5).

There are a number of radio towers and associated infrastructure at Caloma Trig, one of which is believed to be privately owned and operated. Some appear redundant and could be removed. All the facilities predate the gazettal of the Park. Improvement of the appearance of this area is needed.

Policies

- The Service will seek to close those Public Roads that provide access to or within the park but which are not required for public access purposes.
- Those trails within the park not required for public vehicle access, management purposes or strategic fire purposes will be closed and allowed to rehabilitate.
- Management trails to be retained will be gated and maintained to Service standards of access and stability.
- In order to protect Aboriginal sites an archaeological assessment will be undertaken prior to any works to widen existing trails, especially those trails occurring on level or gently sloping lands.
- Additional trails may be constructed where necessary for fire control and other emergency operations. Such trails will be closed and rehabilitated as soon as possible after each incident in accordance with the Fire Management Plan.
- Apiary consents will continue in accordance with Service policy.
- New works, facilities or operations proposed by any organisation or individual will not be permitted unless they are consistent with the purposes of reservation of the area and this plan of management.

- Licences will be issued to the appropriate authority for the two powerlines. Access and maintenance will be in terms of Service policy and guidelines.
- At Gingham Gap the number of access trails to the power lines will be rationalised. Those trails not required will be allowed to revegetate or rehabilitation works undertaken if necessary.
- Radio towers at Caloma Trig that are a pre-existing use under the national parks and Wildlife Act and still required will be licensed. Other towers and associated infrastructure will be removed.
- Liaison will be maintained with operators of non-park infrastructure to determine the on-going need for the infrastructure. If feasible, arrangements will be made for their removal/relocation from the park.

Actions

- The Service will negotiate to have the section of Public Road within the park known as Beargamil Road de-gazetted and used by the Service for management access only.
- The Service will close and rehabilitate/revegetate trails not shown on the map in this plan (refer centre pages), with the exception of trails along the park boundaries. Boundary trails and trails shown on the map will be retained.
- The Service will contact the appropriate authority regarding the rationalisation of powerline access trails near Gingham Gap.
- The Service will determine the owners and operators of the radio towers at Caloma Trig and ascertain those that are unlicensed and/or redundant. Licences will be issued for towers still in use. The Service will seek removal, by the owner, of radio towers and infrastructure no longer in use. If an owner can not be located the Service will remove redundant facilities.
- Work will be undertaken at the Caloma Trig radio tower area to improve security and appearance.
- Liaison will be undertaken with the CSIRO Parkes telescope in regard to minimising radio emissions from facilities within the park.

6.6 Illegal Activities

There is a history of a significant amount of off road trail bike riding occurring in the park, mostly in the vicinity of Caloma Trig and the eastern part of the Curumbenya sector. With gazettal of the park and subsequent patrolling by Service staff the incidence of this activity has decreased.

A number of sites in the park are used for wood collection, mainly for use as firewood, fence strainers and stays. Some of this appears to be associated with park neighbours. This activity, while consistent with the previous tenure of much of the park as State Forest, is inappropriate now the area has been gazetted as Goobang National Park. A degree of public education regarding the inappropriateness of wood collection in the park may be required.

Both pig hunting and kangaroo shooting are known activities within the park. Regular patrols and promotion of the area's gazettal as national park have seen the incidence of both activities decrease. The cleared, grassy area around Beargamil Creek is a popular location for kangaroo shooting.

There is a small amount of illegal grazing in the park by both sheep and goats suspected to originate from neighbouring properties. The southern Curumbenya sector and the western Hervey sector appear to be the most affected areas.

At Bumberry Ridge there is a large amount of rubbish dumping occurring where the Orange - Parkes road intersects this small portion of the park as well as further into the park. Old stockpile areas that have not been rehabilitated also detract from the scenic quality of this area.

Policies

- Illegal activities and related penalties will be highlighted in the information and promotional material prepared for the park.
- The Service will address the illegal dumping of rubbish at the roadside areas of the Bumberry sector of the park. Consideration of this issue will have regard to the appropriateness of establishing a day use area at the site (see Section 6.1.2).

Actions

- Regular patrols will be maintained in areas known to be most affected by illegal activities.
- The Service will, in conjunction with the relevant road management authority, develop a roadside management strategy to address rubbish dumping and rehabilitation of gravel stockpile areas in the Bumberry sector of the park.

PART E. PLAN IMPLEMENTATION

This plan of management is part of the system of management developed by the National Parks and Wildlife Service. The system includes the National Parks and Wildlife Act, the Service's Corporate Plan, associated strategies and management policies. It also includes directorate and region operational planning.

In accordance with Section 81 of the National Parks and Wildlife Act this plan shall be carried out and given effect to by the Service and no operations shall be undertaken in relation to Goobang National Park unless those operations are in accordance with this plan of management. If after adequate investigation operations not included in the plan are found to be justified, the plan may be amended in accordance with Section 75 of the Act.

The implementation of this plan of management will be undertaken within the annual programs of the Service's Central West Region. Regional programs are subject to on-going review within which works and any other activities carried out in Goobang National Park will be evaluated in relation to objectives laid down in this plan.

As a guide to the implementation of this plan, management proposals outlined in the plan have been prioritised as detailed in Table 7. The actions in the table are a summarised version of statements appearing in the body of the plan - further details may be gained from the relevant section of the plan. The following criteria have been used to allocate priorities:

High priority: actions that need to be completed in the near future on the basis that to not undertake these works would result in unacceptable degradation of the resource and/or greatly increase costs associated with rehabilitation at a later date. Actions which have legal or public safety benefits are also accorded a high priority.

Medium Priority: actions that are important but can be deferred without unacceptable loss of natural and/or cultural heritage values.

Low Priority: actions that will be undertaken only after high and medium priority actions have been completed or that can be funded by external means such as grants, concessions operation, sponsorship or similar.

Table 7: Priorities for Implementation

Priority	Action
4.1 Geology, Soils and Landscape	
High/Medium	Map areas of soil erosion, prepare environmental assessment and prioritise rehabilitation works.
Low	Maintain liaison with relevant authority regarding water quality of Lake Metcalfe.
4.3 Native Vegetation	
High	Formulate and implement a methodology to monitor the abundance and vigour of priority species.
High	Formulate and implement a methodology to monitor the structure and species diversity of significant communities.
Medium	Map cleared areas, prioritise for rehabilitation and implement appropriate actions to assist regeneration.
Medium	Investigate mechanisms for maintaining the vegetative corridor between the Currumbenya and Bumberry sectors of the park.
4.4 Introduced Vegetation	
High	Manage weed infestations to minimise their impacts on the park and their potential to spread to neighbouring lands.
4.5 Native Animals.	
High	Implement management actions in species recovery plans for species occurring in the park.
High	Develop and implement a methodology to monitor key populations of endangered and vulnerable animal species.
High	Encourage survey work into the presence of threatened fauna predicted to occur, and the parks invertebrate populations.
Medium	Encourage research into the distribution, abundance and habitat requirements of threatened species.

4.6 Introduced Animals

- High Control, and where possible eliminate, introduced animals.
- Medium Encourage research into the impact of feral animals on native fauna.

4.7 Fire Management

- High Implement actions contained within the Fire Management Plan.
- High Reduce fuel loads as required around the base of scarred trees and cultural sites

5.1 Aboriginal Cultural Heritage

- High Liaise with Local Aboriginal Land Councils and communities in relation to park management.
- Low Establish an information archive to record the history of the park and Aboriginal connections to it.
- Medium In collaboration with the local Aboriginal community, develop an ongoing program of site recording.
- High Advise relevant Local Aboriginal Land Councils of major work proposals.
- Low Liaise with Aboriginal community regarding interpretation of sites.
- Low Incorporate Aboriginal site protection and monitoring components in the park fire management plan.
- High In conjunction with the Aboriginal community, develop methodologies to monitor impacts of natural forces, recreational use and park management activities on Aboriginal sites.

5.2 Historic Places

- High Determine a representative range of logging sites to be conserved.
- High Develop methodologies to monitor impacts of natural forces and people on these sites.
- Low Prepare conservation plans for sites requiring work.

6.1 Recreation Opportunities

- High Develop and implement a program to promote the use of gas and portable fuel appliances.
- Medium Establish signposting as needed to advise about fire restrictions.

6.1.1 Vehicle Access

- Medium Erect gates, other barriers or consider other options to prevent vehicular access to management trails.
- Medium Establish the two proposed tourism drives through the park and liaise with relevant tourism bodies regarding their promotion.
- Medium Establish a program to monitor the condition of all vehicle trails.
- High Liaise with RTA regarding signage.

6.1.2 Camping and Day Use

- High Undertake site design and construction for the Wanda Wandong camping and day use areas, the Caloma Trig Day Use Area and the Greenbah Creek camping and day use areas.
- Medium Undertake an assessment of the need for, and management implications of, establishing a day use area in the Bumberry sector.

6.1.3 Bushwalking

- High Undertake detailed route selection, erosion control and construction as needed to provide the designated walking tracks.

6.1.5 Horse riding

- Medium Monitor the horse riding trails for environmental impacts.

6.2 Promotion and Interpretation

- Low Provide interpretive facilities at the Wanda Wandong Interpretive Walk, Caloma Trig, the Burrabadine Peak walk and along the Hervey Trail interpretive drive.
- High Provide directional signs at strategic locations on key arterial and park roads.

- High Provide park orientation information at the Wanda Wandong Camping Area, Greenbah Creek Camping Area, Caloma Trig Day Use Area and Bumberry Day Use Area.
- Low Contact relevant tourism agencies regarding the provision of park information at tourism offices.
- High Prepare park brochure

6.3 Neighbour Relations

- Medium Explain park management programs through the timely issuing of media releases, information sheets and ongoing planned discussion with neighbours and other interest groups.

6.4 Research

- Low Prepare a prospectus of preferred research projects.

6.5 Management Operations

- Low Negotiate with the relevant authority to de-gazette the section of Beargamil Road within the park as a public road.
- High Close and rehabilitate trails not required for management purposes.
- Medium Liaise with appropriate authority regarding powerline access trails near Gingham Gap.
- Medium Determine the owners of radio towers at Caloma Trig and remove those towers that are redundant.
- Low Undertake work at the Caloma Trig radio tower area to improve security and appearance.
- Low Liaise with the CSIRO Parkes telescope in regard to minimising radio emissions from facilities within the park.

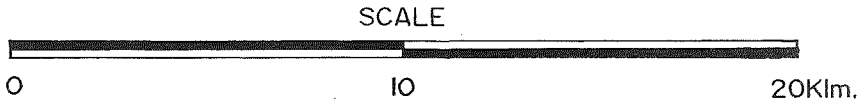
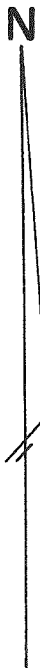
6.6 Illegal Activities

- High Maintain regular patrols in areas known to be most affected by illegal activities.
- Medium Develop, in conjunction with the relevant authority, a roadside management strategy to address rubbish dumping and rehabilitation of gravel stockpile areas in the Bumberry sector.

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GOOBANG NATIONAL PARK



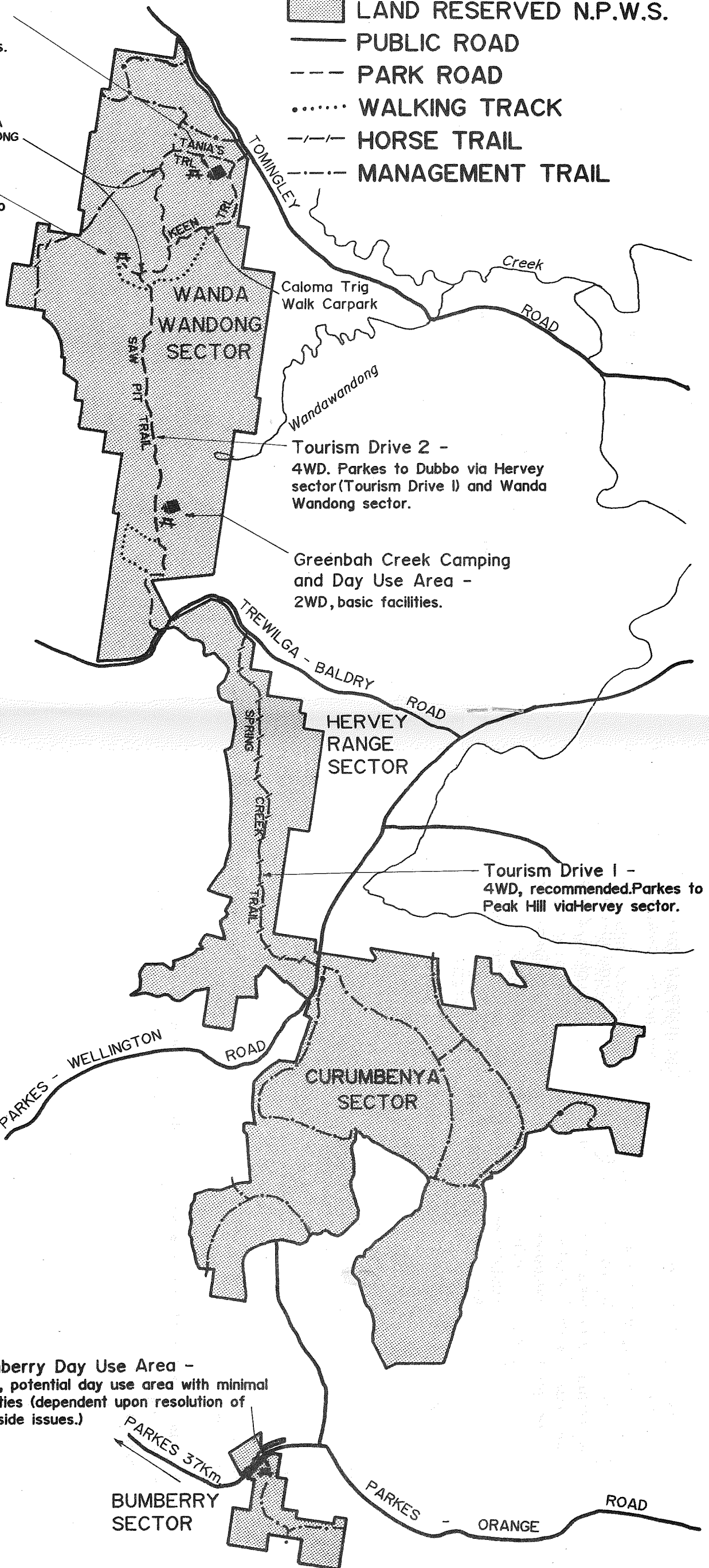
LEGEND

- LAND RESERVED N.P.W.S.
- PUBLIC ROAD
- PARK ROAD
- WALKING TRACK
- HORSE TRAIL
- MANAGEMENT TRAIL

Wanda Wandong Camping and Day Use Area -
 2WD, basic facilities, large group areas.
 Associated Interpretive Walk.

Caloma Trig Day Use Area -
 4WD, minimal facilities, walking track to
 lookout platform.

WANDA
WANDONG
TRAIL

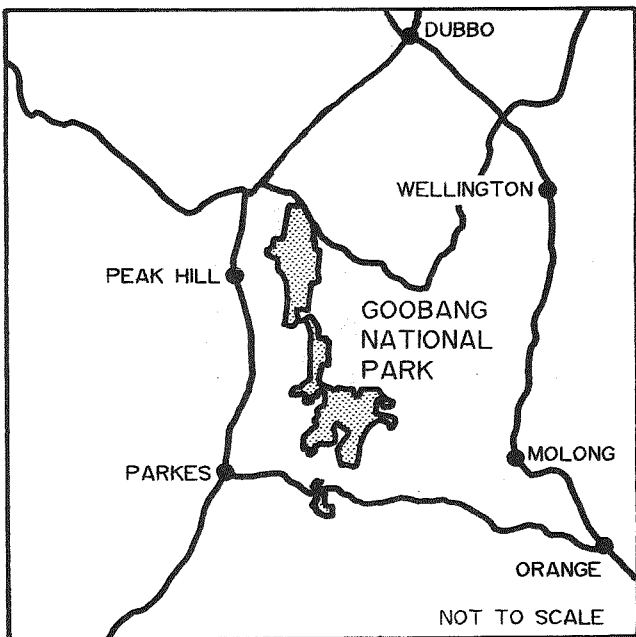


Tourism Drive 2 -
 4WD. Parkes to Dubbo via Hervey
 sector (Tourism Drive 1) and Wanda
 Wandong sector.

**Greenbah Creek Camping
 and Day Use Area -**
 2WD, basic facilities.

Tourism Drive 1 -
 4WD, recommended. Parkes to
 Peak Hill via Hervey sector.

LOCALITY DIAGRAM



Bumberry Day Use Area -
 2WD, potential day use area with minimal
 facilities (dependent upon resolution of
 roadside issues.)

PARKES 37km

BUMBERRY
SECTOR

PARKES - ORANGE ROAD