

BENAMBRA NATIONAL PARK AND TABLETOP NATURE RESERVE

PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

Part of the Department of Environment and Conservation (NSW)

October 2004

This plan of management was adopted by the Minister for the Environment on 29 October 2004.

Acknowledgments

This plan of management was prepared by staff of South West Slopes Region, with the assistance of Riverina Region staff and resources and Head Office specialists.

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FOREWORD

Benambra National Park and Tabletop Nature Reserve covers an area of 1,399 hectares and is located 30 kilometres north east of Albury, 20 kilometres south east of Culcairn on the Yambula Range in southern NSW. Tabletop Nature Reserve covers 102 hectares around Loka Mountain and lies 5 kilometres to the south of Benambra National Park.

The national park and nature reserve are small island remnants of the once common Box Woodland vegetation community and are significant as fragmented vegetated links between the forested country to the south (including Woomargama National Park) and the open woodland country to the north (including Livingstone National Park, Nest Hill Nature Reserve and The Rock Nature Reserve). The vegetation of Benambra National Park is comprised of up to 7 distinct forest ecosystems while that of Tabletop Nature Reserve is comprised of 5 ecosystems. This diversity of vegetation supports a range of animals, including threatened species.

A total of 77 Aboriginal artefacts have been recorded from the national park and it also contains a cave that was reputedly used in the 1860s as a refuge for the notorious bushranger "Mad Dog Morgan".

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

A draft plan of management for Benambra National Park and Tabletop Nature Reserve was placed on public exhibition for three months from 3 October 2003 until 5 January 2004. The exhibition of the plan of management attracted 4 submissions that raised 4 issues. All submissions received were carefully considered before adopting this plan of management.

This plan of management provides for the protection of the native vegetation, habitat and cultural heritage of the national park and nature reserve. Control of introduced plants and animals will be undertaken as a high priority.

This plan of management establishes the scheme of operations for Benambra National Park and Tabletop Nature Reserve. In accordance with section 73B of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.

BOB DEBUS
Minister for the Environment

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1. MANAGEMENT CONTEXT

1.1 LEGISLATIVE AND POLICY FRAMEWORK

The management of national parks and nature reserves in NSW is in the context of a legislative and policy framework, primarily the *National Parks and Wildlife Act 1974* (NPW Act), the NPW Land Management Regulation, the *Threatened Species Conservation Act 1995* (TSC Act) and the policies of the National Parks and Wildlife Service (NPWS). Section 72AA of the NPW Act lists the matters to be considered in the preparation of a plan of management. The policies are a compilation of policies arising from the legislative background and internationally accepted principles of park management. They relate to nature conservation, Aboriginal and historic heritage conservation, recreation, commercial use, research and communication.

Other legislation, international agreements and charters may also apply to management of the area. In particular, the *Environmental Planning and Assessment Act 1979* (EPA Act) requires the assessment and mitigation of the environmental impacts of any works proposed in this plan.

The plan of management is a statutory document under the NPW Act. Once the Minister has adopted a plan, no operations may be undertaken within the national park or nature reserve except in accordance with the plan. The plan will also apply to any future additions to the reserves. Where management strategies or works are proposed for the reserves, or any additions that are not consistent with the plan, an amendment to the plan will be required.

1.2 MANAGEMENT PURPOSES AND PRINCIPLES

1.2.1 Nature Reserves

Nature reserves are reserved under the NPW Act to protect and conserve areas containing outstanding, unique or representative ecosystems, species, communities or natural phenomena.

Under the Act, nature reserves are managed to:

- conserve biodiversity, maintain ecosystem functions, and protect geological and geomorphological features and natural phenomena;
- conserve places, objects, features and landscapes of cultural value;
- promote public appreciation, enjoyment and understanding of the reserve's natural and cultural values; and
- provide for appropriate research and monitoring.

Nature reserves differ from national parks in that they do not have as a management principle to provide for visitor use.

1.2.2 National Parks

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

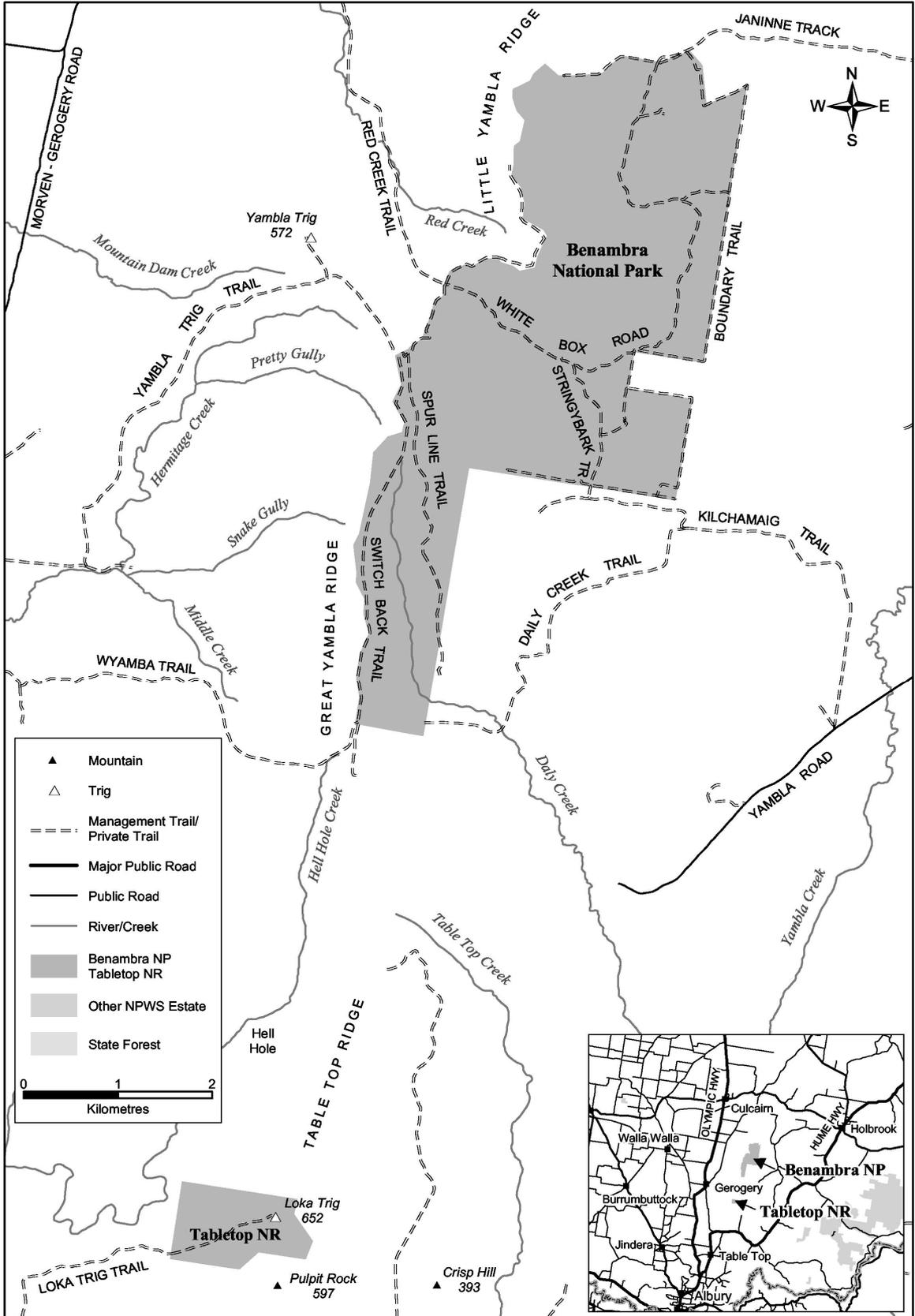
Under the Act, national parks are managed to:

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

1.2.3 Regional Forest Agreements

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

The Southern Regional Forest Agreement (2001) covers the planning area. The process leading up to the RFA provided for major additions to the reserve system, including the establishment of Benambra National Park and Tabletop Nature Reserve.



Map of Benambra National Park and Tabletop Nature Reserve

2. BENAMBRA NATIONAL PARK AND TABLETOP NATURE RESERVE

2.1 LOCATION, GAZETTAL AND REGIONAL SETTING

Benambra National Park (the park) is located 30 kilometres north east of Albury, 20 kms south east of Culcairn on the Yambla Range in southern NSW. Tabletop Nature Reserve (the reserve) lies 5 kilometres to the south of Benambra National Park (see map, page 7). The national park covers 1399 hectares and the nature reserve covers 102 hectares of undulating to steep, forested country. The nature reserve was gazetted in 1965 over the peak and slopes of Loka Mountain, while the national park was gazetted in 2001 as part of the Comprehensive Regional Assessment (CRA) and Regional Forest Agreement (RFA) outcomes. State Forests of NSW managed the national park, as Benambra State Forest, prior to its reservation under the NPW Act.

The major land use in the region includes cattle and sheep farming and broad-acre cropping. The park and reserve are small island remnants of the once common Box Woodland community and are significant as fragmented vegetated links between the forested country to the south (including Woomargama National Park) and the open woodland country to the north (including Livingstone National Park, Nest Hill Nature Reserve and The Rock Nature Reserve).

Benambra National Park lies on the border of three shires. The south-western boundary of the park is within Hume Shire, the north-western boundary of the park is within Culcairn Shire. The majority of the park, however, is within Holbrook Shire. Tabletop Nature Reserve is wholly within Hume Shire.

2.2 LANDSCAPE

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

Both the national park and nature reserve protect areas of remnant native vegetation and the suite of native fauna that they support.

The geology, landform, climate and plant and animal communities of the area, plus its location, have determined how it has been used by humans. Agricultural and forestry practices including burning and grazing have shaped the landscape as it is seen today. Only small remnants of native vegetation exist today when compared with pre-European settlement.

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

2.3 NATURAL HERITAGE

2.3.1 Landform, Geology and Soils

Benambra National Park and Tabletop Nature Reserve are situated on the northern extent of the Great Yambra Range. This range is a prominent 23 kilometre outcrop that commences at Hadriels Hill in the south and extends northwards to within 5 kilometres of Culcairn. The range provides a striking landscape of cliff faces and flat topped peaks and forms part of the Lachlan Fold Belt, a major fault sequence extending from central NSW south through Victoria and Tasmania. Loka Mountain in Tabletop Nature Reserve is one of the most prominent peaks of the Great Yambra Range.

The national park has an altitudinal range of between 328 and 646 metres above sea level while the nature reserve has a range of between 320 to 725 metres. Both cover steeply sloping hill slopes, with only the north-eastern section of the national park being on relatively flat low-lying country.

The local geology consists of two distinct rock types. The first dominates the north of the national park and consists of sedimentary deposits composed of shale. In the south of the national park and in the nature reserve a conglomerate and sandstone sequence, dominated by steep, rocky cliff lines and deeply incised mid-slope gullies occurs. Numerous caves and rock overhangs exist within the conglomerate sequence.

Parent materials and slope provide the main influences on the formation of the soils of the area. On the steep ridges and hill tops a shallow skeletal soil dominates. This soil is relatively high in dispersible clays and weathered fragments of the underlying regolith. It is erodible when exposed and prone to sheet and gully erosion after rainfall events. The soils of the mid and lower slopes are deeper sandy clay loams, which form under the influence of deposition from the surrounding landscape. The heavy clay nature of the subsoil leads to high dispersibility in water and a tendency to form gullies after disturbance events. Several gullies in the south of the national park have been rehabilitated by NPWS in association with trail maintenance works. The relatively low annual rainfall (600-900mm) and lack of permanent creeks dictates that natural erosion rates are kept relatively low.

Both the national park and nature reserve lie within the Murray River Catchment. There is a minor ephemeral branch of Maryvale Creek in the nature reserve and several ephemeral creeks within the park, including Daly Creek, however these contribute very little to local water collection.

2.3.2 Native Plants

The South West Slopes bio-region of New South Wales is one of the most highly disturbed and altered landscapes in NSW (Gibbons & Boak, 2002). Given the history of logging, burning and grazing in the region, all remaining areas of intact remnant native vegetation are now considered significant when compared to pre-1750 vegetative coverage.

Benambra National Park was gazetted following the Southern CRA/RFA process. This process identified sites of significant remnant vegetation in southern NSW. The vegetation of Benambra National Park is comprised of up to 7 distinct forest ecosystems while that of Tabletop Nature Reserve is comprised of 5 ecosystems. Tables 1 and 2

show the various vegetation types and their known distribution within the national park and nature reserve.

Table 1: Forest ecosystems within Benambra National Park

Description	Lithology and Soils	Environmental Niches
Rough barked Red Box/White Box/dry shrub/forb/open forest	Clay loams derived from slope downwash from hills above	Lower slopes of park on well drained clay soils away from flat drainage lines
Rough barked Red Box/White Box/dry shrub/forb/open forest	Moderately pinkish brown clays derived from conglomerate	On plateau and lower escarpment areas on eastern and southern facing slopes between 3 and 20 degrees
Currawang/Nortons Box/low forest	Skeletal clay lithosols on conglomerate	On exposed plateaux tops on private property further to the west and south of the park
Blakelys Red Gum/Red Box/moist/grass/sedge/ herb forest	Deep clay soils derived from hill colluvium - conglomerate	In flat areas adjoining or surrounding drainage lines where slopes < 3 degrees
Rocky Open Shrubland	Skeletal soils on conglomerate	On narrow peaks along range
Remnant Vegetation - not Classified	Shallow clay soils on conglomerate	On western and northern facing slopes
Nortons Box/Hop Bush/Calytrix shrub forest	Clay loams derived from conglomerate	On steep eastern slopes below escarpment

Table 2: Forest ecosystems within Tabletop Nature Reserve

Description	Lithology and Soils	Environmental Niches
Nortons Box/Apple Box/Hop Bush/Yellow daisy bush/ shrub/open forest	Moderately deep clay loams on rocky benches below cliffines on southern and eastern aspects of reserve	On edge of escarpment in western, central and southern parts of the nature reserve on conglomerate cliffs
Nortons Box/Apple Box/Hop Bush/Yellow daisy bush/shrub/open forest	Shallow to moderately deep clays on exposed slopes	On steep eastern slopes below escarpment
Currawang wattle/She-Oak/Tall Shrubland	Skeletal clay loam lithosols on conglomerate plateaux	On flat plateau tops
Apple Box/White Box/moist herb/grass/valley floor forest	Deep clays derived from conglomerate	Lower flatter slopes adjoining creeklines on southern or eastern facing aspects
Rocky Shrubland	Skeletal lithosols on narrow peaks on top of range	Higher peaks of range
Remnant vegetation	Shallow clay loams	On middle and lower slopes and in valley

The forest ecosystems of the park form part of a broader ridge of forested land covering most of the Great Yambla Range. Most of the range consists of relatively intact native grasslands, woodlands and forests.

Adjoining the western boundary of the national park, on the western extent of the Great Yambla Range, is a large expanse of intact native forest on a crown reserve. This area of land could be considered for priority reservation as it and the park combine to represent a significant area of this forest type in the region. It was not included in the initial gazettal process as it is situated immediately outside the Southern CRA boundary.

The Service currently maintains a good working relationship with leaseholders on this land and the former Department of Land and Water Conservation (now the Dept of Infrastructure, Planning and Natural Resources). This contact should continue to ensure that the significance of the forest is not diminished through disturbance such as clearing, over-grazing and wildfire.

A portion of private land on the southern boundary of the national park is fenced into the park. This Service currently undertakes routine management activities within this land (weed spraying, feral animal control) to ensure consistency within the fenced boundaries of the park. This block should also be considered for priority purchase.

The lands adjoining the reserve contain relatively intact native ecosystems which combine to provide a vegetated link between both the park and the reserve.

Limited areas of old growth exist within the national park and nature reserve. Past fire regimes have had a big influence on the vegetation in terms of forest structure and diversity. Small scale logging, collection of timber for firewood and fencing materials and grazing have also led to marked differences between the ecosystems that can be seen today and those thought to exist prior to European settlement.

One species of plant listed on the *Threatened Species Conservation Act 1995* is known to exist within the national park and nature reserve. Woolly Ragwort (*Senecio garlandii*) occurs in small pockets on south easterly facing moist slopes within the region. It is relatively common within Tabletop Nature Reserve and Benambra National Park but rare in other parts of NSW.

Of particular significance in the national park is the expanse of White Box (*Eucalyptus albens*) woodland as well as the co-existence of White Box and Red Box (*E. polyanthemos*) within the same forest ecosystem. Grassy White Box woodlands have been listed in the Threatened Species Conservation Act as being an endangered ecological community.

2.3.3 Native Animals

Systematic fauna surveys conducted at the end of 2001 (NPWS) revealed that Benambra National Park is important as an island habitat for a diverse range of native species. A total of 50 species of birds, 10 reptiles, 12 mammals and 4 amphibian species were surveyed. Located in the park during the surveys were the following significant species:

Table 3: Native Animals recorded in Benambra National Park

Common Name	Scientific Name	Significance
Squirrel Glider	<i>Petaurus norfolcensis</i>	Vulnerable
Turquoise Parrot	<i>Neophema pulchella</i>	Vulnerable
Speckled Warbler	<i>Pyrrholaemus sagittatus</i>	Vulnerable
Painted Honeyeater	<i>Grantiella picta</i>	Vulnerable
Diamond Firetail	<i>Stagonopleura guttata</i>	Vulnerable
Brown Tree-creeper	<i>Climacteris picumnus</i>	Vulnerable
Hooded Robin	<i>Melanodryas cucullata</i>	Vulnerable
Yellow-footed Antechinus	<i>Antechinus flavipes</i>	Uncommon

All species listed as vulnerable appear in the Schedule 2 of the *Threatened Species Conservation Act, 1995*.

Similar species diversity is expected in Tabletop Nature Reserve due to its proximity to the park and the intact nature of the vegetation within and surrounding the reserve.

CRA modelling suggests that habitat for the following vulnerable species may also exist within the national park and nature reserve. This, however, does not necessarily mean that these species are present.

Table 4: Possible Threatened Species occurring within the park and reserve

Common Name	Scientific Name
Koala	<i>Phascolarctos cinereus</i>
Superb Parrot	<i>Polytelis swainsonii</i>
Black-chinned Honeyeater	<i>Melithreptus gularis</i>
Square-tailed Kite	<i>Lophoictinia isura</i>
Swift Parrot	<i>Lathamus discolor</i>
Regent Honeyeater	<i>Xanthomyza phrygia</i>
Carpet Python	<i>Morelia spilota variegata</i>
Grey Headed Flying-fox	<i>Pteropus poliocephalus</i>
Little Red Flying-fox	<i>Pteropus scapulatus</i>
Eastern False Pipistrelle	<i>Falsistrellus tasmaniensis</i>

Habitat value of these and other nearby 'island' reserves is significantly increased due to large-scale land clearing and habitat alteration around the South West Slopes in the past. The area of intact remnant habitat has decreased by around 85% since European settlement. Habitat for smaller ground dwelling mammals, birds and reptiles has decreased significantly since European settlement. Coarse woody debris loads in woodlands are now less than 15% of that thought to be present pre-1750 (Gibbons & Boak, 2002).

2.4 CULTURAL HERITAGE

2.4.1 Aboriginal Heritage

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

Aboriginal artefacts have been located across a broad range of landscapes within the South West Slopes Region. The reserves are situated in Wiradjuri country and fall under the jurisdiction of the Albury and District Aboriginal Land Council.

The Great Yambula Range, and to a larger extent the surrounding bluff and ridge top sequence around the nature reserve, are known to be extremely important to the Wiradjuri people (Knight, 2002 pers. comm). No Aboriginal sites were found in a preliminary survey of Tabletop Nature Reserve (NPWS, 2002), however, located near the reserve are some of the most highly significant Aboriginal sites in the region, including pigment art sites, petroglyphs (rock carvings), axe grinding grooves and stone

arrangements. At the landscape scale, these sites are associated with prominent rocky mountains, isolated hills and watercourses (Knight, 2001a).

A survey of the national park (Dearling and Grinbergs, 2002) found 77 artefacts in 15 open scatters and 8 isolated finds, as well as at least two caves and numerous rock overhangs along the escarpment that could have provided shelter for Aborigines using the area. The lack of water in the area, however, means that these areas were unlikely to have been used for long term occupation. It is also possible that the caves and overhangs in the area could have been used for burials as burial sites were often located near or within sight of hills and mountains so the spirits of the dead would ascend to the sky via such features (Knight, 2001b).

2.4.2 Non-Aboriginal Heritage

Early maps of the Parish of Mountain Creek and Parish of Woomargama indicate that the area which is now national park was declared a Forest Reserve as early as 1879 prior to its reservation as a State Forest in 1918.

Benambra National Park has a history of past use for grazing, small-scale logging and controlled timber harvest for firewood and fencing materials. In addition, a large cave known as “Morgan’s Cave” exists within the park. This cave was reputedly used in the 1860’s as a refuge for the notorious bushranger “Mad Dog Morgan”. Morgan was accused of the robberies of mail coaches around Tumbarumba and Kyeamba as well as for the murder of several policeman and a Wagga judge. It is reported that Morgan used a number of caves in the region as a hide-out for the years prior to his eventual death in a shootout with pursuing policemen.

A timber-lined well or mineshaft exists in the south east of the park. Its previous use or historical significance is unknown.

Due to its steep, rocky nature Tabletop Nature Reserve was lightly grazed but not cleared. There are no known historic sites in the nature reserve.

3. THREATS TO BENAMBRA NP AND TABLETOP NATURE RESERVE

3.1 Introduced Plants

The NPWS South West Slopes Region Pest Management Strategy identifies priority pest species and programs for action through set criteria. By following this same process the prioritisation of Reserve pest species programs may be established and directly linked into the regional strategies (refer to the South West Slopes Region Pest Management Strategy). This strategic approach will consider such issues as (but not limited by) the control of weeds in endangered ecological communities, significant remnant vegetation associations, threatened/endangered species habitat and areas of community/neighbour concern.

Disturbance such as fire, grazing and logging have led to the proliferation of several species of weeds within Benambra National Park, particularly on the more fertile flats in the north and along cleared boundary fences surrounding the park. Sheep grazing previously occurred under a permissive occupancy and grazing licence which ceased upon gazettal of the park. St Johns Wort (*Hypericum perforatum*) and Paterson's Curse (*Echium plantagineum*) are the two most prevalent weed species within the park. Both are listed as noxious weeds in the area. Control of these species, initially through spraying, has begun at sites of high weed density. Tree of Heaven (*Ailanthus altissima*), which is also a noxious weed, exists in an isolated gully in the south east of the park. A program of spraying and physical removal has been commenced to remove this species.

Other pasture weeds exist on the lower slopes of the park, particularly along the disturbed boundary. A firebreak is maintained on an annual basis around the parks lower boundary. The intact nature of the forest ecosystems in the park, combined with the maintenance of a firebreak, appears to keep pasture species invasion at a low level.

Tabletop Nature Reserve is relatively free of weeds. Common pasture species exist in the reserve, but not over large areas.

3.2 Introduced Animals

Introduced animals are those animals not considered native to the park or reserve. Introduced animals known to occur in Benambra National Park and Tabletop Nature Reserve include:

Foxes: Foxes exist within the park, as they do throughout the South West Slopes, although regular baiting programs undertaken in cooperation with local landholders and Rural Land Protection Boards appear to effectively control local populations. Predation by foxes on native animals has been identified as a key threatening process under the *Threatened Species Conservation Act 1995*. Key threatened species habitat will be identified within the Reserve and baiting programs adjusted to cater for these areas and the threatened species vulnerability.

Goats: Goat populations in the 1970s and 1980s were relatively high on the Great Yambula Range. Opportunistic control by landowners and an aerial shooting program implemented by NPWS in 2002 have been successful in reducing these numbers to a low level. Given the damage caused by goats, keeping populations low is considered a high priority. Opportunistic control of goats will continue in order to keep populations, and therefore impacts, to a minimum.

Rabbits: Rabbits have posed a problem to adjoining landholders in the past. There is currently little evidence of rabbits in the park and reserve and it is thought that a combination of myxomatosis, rabbit calicivirus and regular landholder baiting and harbour removal programs have controlled populations to a level where active control will only be required periodically. Rabbit control programs using methods such as shooting, baiting and harbour removal in cooperation with landholders, are on-going in the nature reserve and have recently commenced in the national park. This will continue on an annual basis whilst rabbit populations impact on the park and reserve and adjoining properties.

Again, species of concern, and methods for control are outlined in the Regional Pest Management Strategy. Any species of pest animals not yet identified within the park and reserve will be controlled as they appear, in line with principles outlined in the regional strategy.

3.3 Fire

Fire is a natural feature of many environments and is essential to the survival of some plant communities. Inappropriate fire regimes, however, can lead to loss of particular plant and animal species and communities. Fire can also damage cultural heritage, recreation and management facilities and can threaten visitors and neighbouring land.

In 1985 the entire national park was burnt. Lightning started fire north west of the national park, which burned through the reserve and stopped on property adjacent to the eastern boundary of the park. Smaller fires have burnt in the park in recent history. Ignition causes have predominantly been from lightning. Most fires have been kept relatively small by local Rural Fire Service brigades, State Forests crews and neighbouring landholders. The nature reserve has not burnt for at least 30 years according to local landholders.

There are a number of assets located close to the reserve, with the main ones being facilities associated with telecommunications sites near both the nature reserve and national park, and agricultural facilities such as homesteads, sheds and machinery.

The NPWS uses a zoning system for bushfire management in NPWS reserves. NPWS zones are compatible with the system adopted by the Bushfire Coordinating Committee for use in District Bushfire Management Committee (DBFMC) bushfire risk management plans.

NPWS maintains cooperative arrangements with surrounding landowners and Rural Fire Service brigades and is actively involved in the Culcairn, Holbrook and Hume Bush Fire Management Committees. Cooperative arrangements include approaches to fuel management, support for neighbours fire management efforts and information sharing.

3.4 Access and Use

Benambra National Park is almost entirely surrounded by freehold land. An area of land to the west of the park was once an animal and bird sanctuary (1941) but is now broken up into several conditional leases. There are many road reserves leading to the national park through private property, although roads have never been constructed within these reserves. The main access route into the park is along a gated trail that in part follows a road reserve through private property at the northern end of the park, use

of which requires the agreement of the landholder. In the park this road is known as White Box Road. The current road/trail network in the park (refer map) appears to have been constructed as early as 1892 (Dearling and Grinbergs, 2002).

The Roads and Traffic Authority maintains a radio repeater just outside the national park's southern boundary, although the site is fenced into the park. Access to the site is through private property from the south-west. The NPWS also maintains an automated weather station located within the RTA repeater complex. This weather station is used for collection of fire weather information during the bushfire danger season.

Tabletop Nature Reserve is also surrounded by private property. Near the site of Loka Trig, the reserve's highest point, there are a number of telecommunication facilities. Several of these sites are located within an easement (excluded from the reserve when it was gazetted) but at least one site is within the nature reserve boundary. No lease arrangements currently exist for this tower. One road within the nature reserve provides access to the trig and telecommunication towers. The road is gated at the reserve boundary.

The relatively small size of the national park and nature reserve and lack of facilities, combined with the fact that the park and reserve are almost totally surrounded by freehold land, dictates that previous recreational use has been minimal. Four wheel driving, motorbike riding, hunting, bushwalking, cycling and camping have all occurred in the national park on a very limited basis in the past. The majority of previous use has been for grazing under permit, timber gathering and hunting.

Bird watching is a popular activity in the national park. The park has also been the subject of a number of research studies, surveys and educational visits. A local Landcare group and ornithological society have used the park for educational visits on a number of occasions.

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5. MANAGEMENT ISSUES AND STRATEGIES

Current Situation	Desired Outcomes	Strategies	Priority
<p>Soil and water conservation</p> <p>Soils of the park and reserve are erodible when exposed. Heavy clay subsoils are prone to gullyng after disturbance related to trail maintenance and drainage activities.</p> <p>Remedial works were undertaken in 2001 on gullies in the park.</p> <p>The access road to Loka Trig is relatively stable but shows signs of past erosion.</p> <p>No major drainage lines exist within the park or reserve. Water quality is generally good.</p>	<p>Soil erosion is minimised.</p> <p>Disturbance to soils through management activities is minimised.</p> <p>Water quality is maintained.</p>	<p>Regularly monitor the condition of the roads in the park and reserve. When required, undertake trail maintenance works in accordance with South West Slopes Region Environmental Safeguards Code of Practice and Fire Trail Maintenance Policy (2001).</p> <p>Monitor remedial works on gullies in the park to ensure stabilisation and revegetation is occurring. Undertake further remedial works on site if necessary.</p> <p>Monitor the stability of the access road to Loka Trig and maintain drainage works to encourage stabilisation of the road surface.</p> <p>Look into acquiring crown reserve adjacent to Benambra National Park.</p>	<p>High</p> <p>Med</p> <p>Med</p> <p>High</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Native plant conservation</p> <p>The native vegetation in the park and reserve has been highly altered by past grazing and fire. Flora plots were established in 2001 in the park and reserve and can be used in the future to monitor vegetation diversity following the removal of grazing.</p> <p>Woolly Ragwort (<i>Senecio garlandii</i>) exists within the park and reserve. It is listed as vulnerable in the Threatened Species Conservation Act. A recovery plan has been prepared for this species.</p> <p>High quality native vegetation exists outside the western boundary of the park. This portion adds substantially to the significance of the park's native forest ecosystems. It also contains Woolly Ragwort.</p>	<p>All native plant species and communities are conserved.</p> <p>Structural diversity and habitat values are restored in areas subject to past disturbance.</p>	<p>Develop detailed vegetation maps of Benambra National Park and Tabletop Nature Reserve.</p> <p>Monitor vegetation recovery following the removal of grazing and feral animals by periodically revisiting the flora plots and recording diversity and structure of species and undertaking photo-monitoring of plots at selected locations in both the park and reserve.</p> <p>Undertake a targeted survey for Woolly Ragwort. Map known locations within the park and reserve and include in the fire operations plan to ensure protection.</p>	<p>Med</p> <p>High</p> <p>Med</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Native animal conservation</p> <p>Eight threatened species of fauna were recorded in the park in 2001, including both birds and small mammals. Other threatened species may also be present.</p> <p>Current threats to native fauna include predation by non-native species, habitat alteration in and adjoining the park and reserve, and wildfire.</p> <p>Recovery plans are currently in preparation for the Squirrel Glider and Swift Parrot.</p>	<p>All native fauna habitats are preserved.</p> <p>Ensure that disturbance to existing ecosystems is minimised.</p>	<p>Control wildfire in the reserve by identifying threats and undertaking hazard reduction activities, suppressing wildfire and cooperating with local authorities and landholders in control and prevention activities.</p> <p>Regularly undertake strategic feral animal and weed control programs to reduce threats to native fauna through predation and loss of habitat.</p> <p>Undertake targeted surveys for threatened species and monitor population sizes of known communities.</p> <p>Implement measures listed in recovery plans when completed, monitor populations by undertaking targeted survey on a periodic basis.</p>	<p>High</p> <p>High</p> <p>Med</p> <p>Med</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Introduced plants and animals</p> <p>Goats are a major threat to the ecological integrity of the park and reserve, while foxes and, to a lesser extent, rabbits continue to alter natural processes within and around the park and reserve.</p> <p>St John's Wort and Paterson's Curse exist in the fertile flats at lower elevations in the park. Tree of Heaven exists in a gully on the south-east boundary of the park.</p> <p>Pasture species are relatively common on the northern and eastern boundary of the park and within the reserve. These species are sprayed annually on the park boundary to maintain a fire break.</p>	<p>The impact of introduced species on native species and neighbouring lands is minimised.</p>	<p>Continue to work with neighbours to control goats, with the aim of having lowest achievable population densities within three years.</p> <p>Continue strategic fox and rabbit control programs both on, and surrounding the park and reserve to meet each programs identified objectives.</p> <p>Control infestations of St. John's Wort and Paterson's Curse annually to prevent their spread. Encourage regeneration of native species by using selective herbicides where possible.</p> <p>Monitor Tree of Heaven on south-east boundary of the park to ensure effective kill. Respray and remove dead timber with aim of complete removal within three years.</p> <p>Control other weeds and pest animal species in the park and reserve on a priority basis according to the regional pest management strategy.</p> <p>Seek the cooperation of other authorities and neighbours in implementing weed and pest animal control programs.</p>	<p>High</p> <p>High</p> <p>High</p> <p>Med</p> <p>Med</p> <p>Med</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Fire management</p> <p>Fire is a natural feature of the Australian environment and is essential to the survival of some plant communities. Frequent or regular fire, however, can lead to alteration to particular plant and animal species and communities. Fire could also damage cultural features and fences and threaten neighbouring land.</p> <p>The vegetation of the park and reserve is such that it has adapted to long periods without fire and frequent fires are likely to result in alteration to the ecology of the area.</p> <p>No permanent water exists on the nature reserve but there are two small dams on the national park which were constructed before gazettal for the purpose of providing water for stock.</p>	<p>Persons and property are protected from bushfire.</p> <p>Fire regimes are appropriate for conservation of plant and animal communities.</p> <p>Cultural features are protected from damage by fire.</p>	<p>Participate in Albury Hume Culcairn Bush Fire Management Committees. Maintain coordination and cooperation with Rural Fire Service brigades, Council fire control officers and neighbours with regard to fuel management and fire suppression.</p> <p>Prepare a Type 2 Fire Management Plan and fire operations map for the park and reserve by 2006 that detail life, property and natural and cultural heritage protection strategies.</p> <p>Retain the small dams on the park for fire fighting.</p> <p>Encourage further research into the ecological effects of fire in the reserve. Prescribed burning may be undertaken in the park or reserve depending on future fire management planning and research outcomes.</p>	<p>High</p> <p>Med</p> <p>Med</p> <p>Low</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Cultural heritage</p> <p>Numerous artefact scatters, caves and overhangs exist within the park. A potential archaeological deposit, in the form of a stone arrangement, exists near the park's southern boundary and other sites may exist within the reserve. The area is known to be significant as a cultural landscape by the Aboriginal people of the area.</p> <p>The park and reserve have a history of use for forest protection, small-scale logging and grazing.</p>	<p>Cultural features are conserved and managed in accordance with their significance.</p>	<p>Precede ground disturbance work by a check for cultural features.</p> <p>Consult and involve the Albury Local Aboriginal Land Council in the management of Aboriginal sites, places and values.</p> <p>Investigate the archaeological deposit within the nature reserve.</p>	<p>High</p> <p>High</p> <p>Low</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Visitor use</p> <p>Visitor use of the national park and nature reserve is limited.</p> <p>Use of the park and reserve must be carefully managed since they are relatively small and significant areas of remnant vegetation.</p> <p>No facilities currently exist for visitor use in the park or reserve.</p> <p>Access to Tabletop Nature Reserve is via an access track from the reserve's south west, however, the road is gated and locked at two locations.</p> <p>Access to Benambra National Park is limited because trails wholly or partly cross private property. Locked gates have been installed at several locations.</p>	<p>The local community is aware of the significance of the area and of management programs.</p> <p>Visitor use is ecologically sustainable.</p>	<p>Allow public vehicular access (4WD dry weather) on designated park roads (see map). No other facilities will be provided.</p> <p>Liaise with neighbours with a view to arranging permanent public access to the national park boundary.</p> <p>Permit organised group visits, subject to limits on numbers and other conditions if necessary to minimise impacts, with prior NPWS approval.</p> <p>Monitor levels and impacts of use, especially in terms of protection of vegetation and cultural heritage.</p>	<p>High</p> <p>High</p> <p>Med</p> <p>Med</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Research</p> <p>Scientific study is needed to improve understanding of the natural and cultural heritage of the park and reserve, the processes that affect them and the requirements for management of particular species.</p>	<p>Research enhances the management information base and has minimal environmental impact.</p>	<p>Undertake and encourage research to improve knowledge and management of natural and cultural heritage.</p>	<p>Med</p>
<p>Management operations</p> <p>Management trails exist within the park and reserve, to a varying standard.</p> <p>A number of telecommunication towers exist near Loka Trig within the reserve. Some of these are within easements or on the inholding while others impinge on the reserve. No formal leases or licences exist for these sites.</p> <p>The boundaries of the park and reserve are fenced, although the location of the fence around the reserve does not coincide with cadastral boundary in all places. The fences are maintained to a stock-proof standard, although goats and other animals in the area continually damage the fence.</p>	<p>Management facilities adequately serve management needs and have acceptable impact.</p> <p>All non-NPWS facilities within the nature reserve are subject to a lease.</p>	<p>Construct gates and signage if necessary to prevent public vehicular use of management trails within the park.</p> <p>Develop leases for the telecommunications sites in the reserve near Loka Trig.</p> <p>Work with neighbours to maintain boundary fences to a stock-proof standard in accordance with NPWS Boundary Fencing Policy.</p>	<p>Med</p> <p>High</p> <p>Med</p>

High priority activities are those imperative to achievement of the objectives and desired outcomes. They must be undertaken in the near future to avoid significant deterioration in natural, cultural or management resources.

Medium priority activities are those that are necessary to achieve the objectives and desired outcomes but are not urgent.

Low priority activities are desirable to achieve management objectives and desired outcomes but can wait until resources become available.