

**CARRAI NATIONAL PARK AND
CARRAI STATE CONSERVATION AREA**

PLAN OF MANAGEMENT

National Parks and Wildlife Service

Part of the Department of Environment and Climate Change NSW

July 2008

This plan of management was adopted by the Minister for Climate Change and the Environment on 21st July 2008.

Acknowledgments

This plan of management is based on a draft plan prepared by staff of the Northern Tablelands of the National Parks and Wildlife Service (NPWS), with the assistance of staff of the Mid North Coast Region and Northern Branch Conservation Programs and Planning Division and Planning Group.

NPWS specialists, the Northern Tablelands and Mid North Coast Regional Advisory Committees and members of the public provided valuable information and comments.

Cover photo of a sedgeland (Endangered Ecological Community – Montane Peatlands of the New England Tableland) within Carrai SCA, taken by Piers Thomas, NPWS.

For additional information or enquiries about this plan or Carrai National Park and State Conservation Area, contact the ranger at the NPWS Walcha Area office at 188W North Street, Walcha or by telephone on (02) 6777 4700.

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FOREWORD

Carrai National Park and Carrai State Conservation Area are located approximately 100 kilometres west of Kempsey and 60 kilometres south east of Armidale in north eastern NSW. Carrai National Park consists of three separate sections totalling 11,397 hectares, and Carrai State Conservation Area consists of two separate sections totalling 6,853 hectares.

Carrai National Park and Carrai State Conservation Area protect 20 identified vegetation communities including subtropical rainforest, three old growth forest types, and eight communities that are poorly represented in the NSW system of reserves. They form part of a contiguous forest corridor from north of Dorrigo to the Manning River valley which provides habitat for over 125 animal species, including 14 that are threatened species.

An area of 3,530 hectares within Carrai National Park has been declared wilderness under the *Wilderness Act 1987*. The declared Carrai wilderness is a component of a larger identified and declared regional wilderness network associated with the Eastern Escarpment.

The New South Wales *National Parks and Wildlife Act 1974* requires that a plan of management be prepared for each national park and state conservation area. 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 Carrai National Park and Carrai State Conservation Area was placed on public exhibition from 29th October 2004 until 7th February 2005. The submissions received were carefully considered before adopting this plan of management.

This plan contains a number of actions to achieve “Better environmental outcomes for native vegetation, biodiversity, land, rivers, and coastal waterways” (Priority E4 in the State Plan) including control of introduced plants and animals, further research into threatened species, and rehabilitation of degraded areas. The plan also contains a number of actions to help achieve Priority E8 in the State Plan, *More people using parks, sporting and recreational facilities, and participating in the arts and cultural activity*, such as the provision of interpretive information and camping opportunities.

This plan of management establishes the scheme of operations for Carrai National Park and Carrai State Conservation Area. In accordance with section 73B of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.

Verity Firth
Minister for Climate Change and the Environment

1. NATIONAL PARKS IN NEW SOUTH WALES

1.1 LEGISLATIVE AND POLICY FRAMEWORK

The management of national parks and state conservation areas in NSW is in the context of a legislative and policy framework, primarily the *National Parks and Wildlife Act 1974* (NPW Act), the *Threatened Species Conservation Act 1995* (TSC Act) and the policies of the National Parks and Wildlife Service (NPWS). The matters to be considered in the preparation of a plan of management are listed in Section 72AA of the NPW act. NPWS policies relate to nature conservation, cultural 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 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 Carrai National Park or Carrai State Conservation Area except in accordance with the plan. The plan will also apply to any future additions to the park or state conservation area. Where management strategies or works are proposed for the park or state conservation area or any additions that are not consistent with the plan, an amendment to the plan will be required.

1.2 MANAGEMENT PURPOSES AND PRINCIPLES

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.

State conservation areas

State conservation areas are reserved under the NPW Act to protect and conserve areas that contain significant or representative ecosystems, landforms or natural phenomena or places of cultural significance; that are capable of providing opportunities for sustainable visitor use and enjoyment, the sustainable use of buildings and structures or research; and that are capable of providing opportunities for uses permitted under other provisions of the Act.

Under the Act, state conservation areas are managed to:

- conserve biodiversity, maintain ecosystem functions, protect natural phenomena and maintain natural landscapes;
- conserve places, objects and features of cultural value;
- provide for the undertaking of uses permitted under provisions of the Act (including uses permitted under section 47J, such as mineral exploration and mining) having regard to the conservation of the natural and cultural values of the state conservation area;
- provide for sustainable visitor use and enjoyment that is compatible with conservation of the area's natural and cultural values and with uses permitted in the area;
- provide for sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to conservation of the area's natural and cultural values and with other uses permitted in the area; and
- provide for appropriate research and monitoring.

The Act also requires review of the classification of SCAs every 5 years to determine whether they should receive either and national park or a nature reserve classification. The classification review for SCAs is described in section 47M of the Act and is undertaken in consultation with the Minister administering the *Mining Act 1992*. Should it no longer be required to be classified as a SCA, Carrai SCA should be added to the adjacent national park and managed accordingly.

Wilderness

An area of 3,530 hectares within Carrai National Park has been declared wilderness under the *Wilderness Act 1987* (see map 1 and section 3.4 Wilderness). The declared Carrai wilderness is a component of a larger identified and declared regional wilderness network associated with the Great Escarpment.

Wilderness areas are large natural areas of land that, together with their native plant and animal communities, are essentially unchanged by human activity. Wilderness areas provide opportunities for solitude and appropriate self-reliant recreation, however, protection of natural values has priority over providing for recreational use.

Management of natural and cultural heritage and of introduced species and fire is carried out in wilderness areas in the same manner as other parts of the park, with special attention to minimising impacts on wilderness values.

In accordance with section 9 of the Wilderness Act, declared wilderness areas will be managed according to the following management principles:

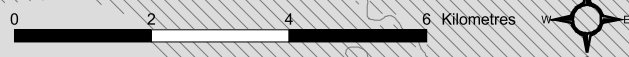
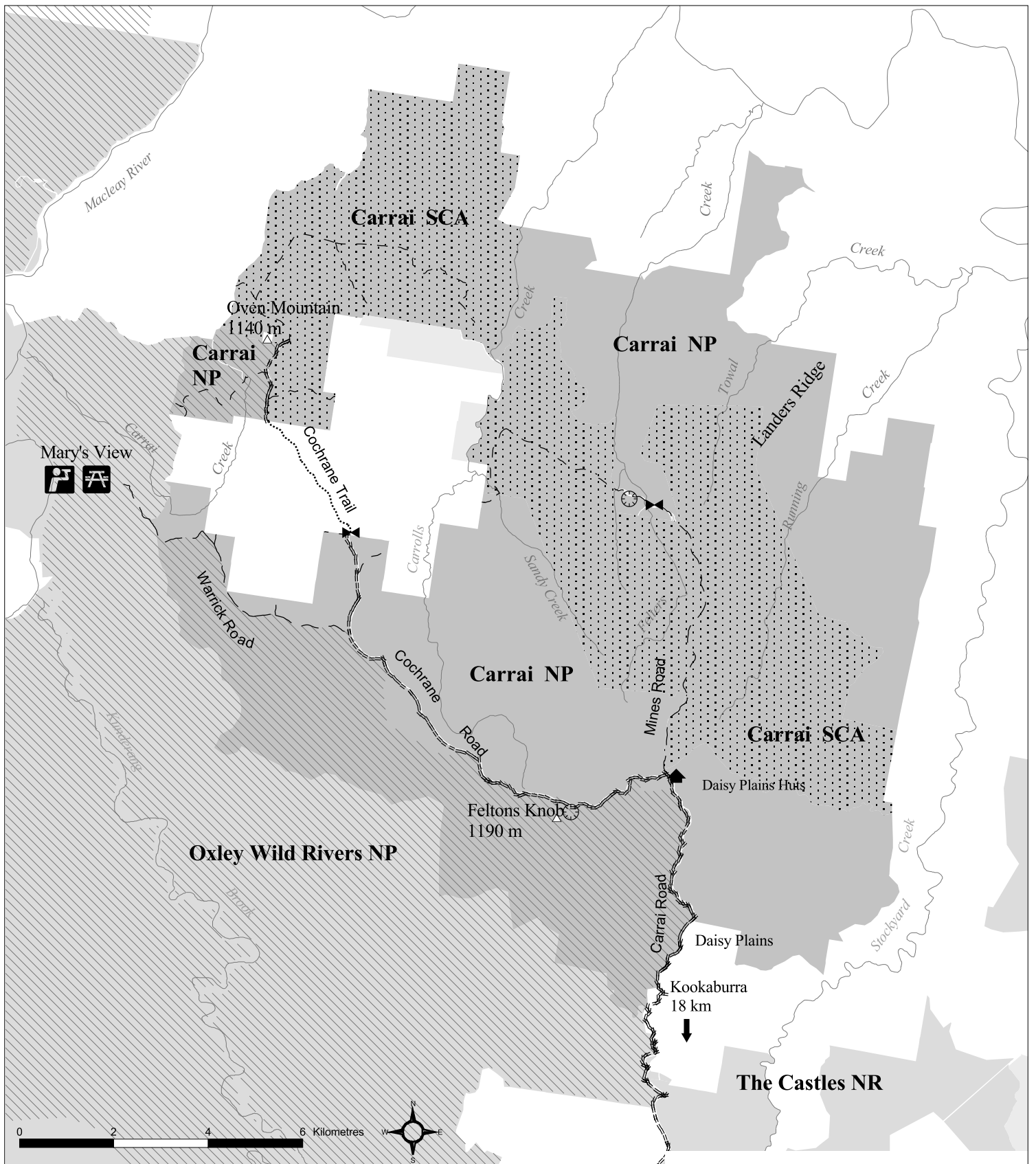
- to restore (if applicable) and to protect the unmodified state of the area and its plant and animal communities;
- to preserve the capacity of the area to evolve in the absence of significant human interference; and
- to provide opportunities for solitude and appropriate self-reliant recreation.

World Heritage Areas

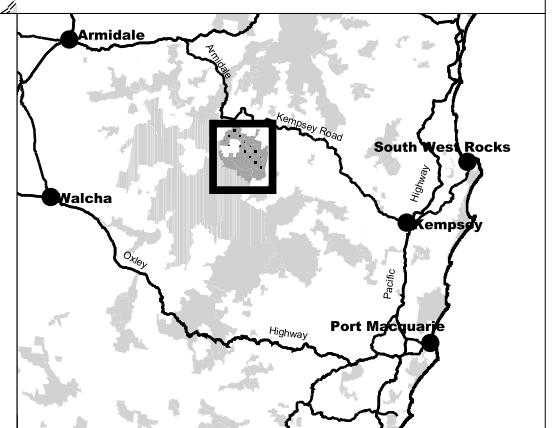
In 1986, the neighbouring Oxley Wild Rivers National Park and other rainforest reserves in central eastern Australia were inscribed on the World Heritage list because they represented outstanding examples of the earth's evolutionary history, ongoing evolutionary processes and hot spots of biodiversity. These areas were incorporated into the Central Eastern Rainforest Reserves of Australia, recently renamed the Gondwana Rainforests of Australia.

The park has significant natural values and it is possible that an assessment of the forests may identify these values to be of outstanding universal significance, adding to the values already represented in the Gondwana Rainforests. The area demonstrates major facets of the evolution of plants and animals and Australian rainforests with sub tropical and eucalypt transition zones with rainforest all represented. The limestone areas are particularly significant as they contain endemic rainforest plant species such as *Cryptocarya williwilliana*. It may also be appropriate to include the park in the Gondwana Rainforests as it would then be contiguous with others parts of the World Heritage Area and has similar values to other sections of the Gondwana Rainforests.

Inscription of all, or part of the planning area on the World Heritage List would require nomination for listing by the Commonwealth Government. If listed management would be consistent with Australia's obligations under the World Heritage Convention, that is: to identify, protect, conserve, present and transmit to future generations, the World Heritage values of the property.



---	Management Trail		Carrai National Park
- - - - -	Unsealed Road - on park		Carrai State Conservation Area
====	Unsealed road - off park		Other NPWS Estate
.....	Private Property Trails		Forests NSW Estate
—	Rivers and creeks		Declared Wilderness
	Quarry		Hut
	Gate - NPWS		Trig
			Lookout
			Day Use Area



3. CARRAI NATIONAL PARK AND CARRAI STATE CONSERVATION AREA

3.1 LOCATION, GAZETTAL AND REGIONAL SETTING

Carrai National Park and State Conservation Area (referred to as “the planning area” in this plan) are located approximately 100 kilometres west of Kempsey and 60 kilometres south east of Armidale in north eastern NSW (see map 1). Carrai National Park consists of three separate sections totalling 11,397 hectares, and was gazetted in 1999 as part of the North-East Regional Forest Agreement under the *Forest and National Park Estate Act 1998*. Carrai State Conservation Area consists of two separate sections totalling 6,853 hectares. It was reserved under the *National Park Estate (Reservations) Act 2002*, with vacant Crown land additions in 2005.

Large portions of the prominent and isolated Carrai Plateau are preserved within the planning area, which is located within the NSW Lower North Coast bioregion. This bioregion covers an area from Coffs Harbour to the Hunter Valley and inland to the New England escarpment, and contains a large number of vulnerable and endangered species. The bioregion has been highly modified by humans through urban and rural development, forestry activities, the introduction of exotic plants and animals, burning and water regulation. These activities have resulted in the loss of large areas of habitat for native species, and many of the bioregion’s ecological communities and the species that live in them are under stress (NSW NPWS, 2000).

The planning area forms part of a large continuous tract of forested land extending along the edge of the eastern escarpment from Dorrigo to the Manning River Valley comprising various areas of NPWS estate, State Forests, Crown lease and freehold land.

The planning area lies within Armidale Dumaresq, Walcha and Kempsey Shires and the Mid North Coast Catchment Management Board. Much of the surrounding land remains forested due to the rugged terrain and inaccessibility of the Carrai plateau. Approximately 600 hectares between the southern and northwestern sections of the planning area have been cleared for cattle grazing.

The planning area is within the traditional Birpai, Ngaku and Thunggutti Aboriginal country and the Thunggutti and Kempsey Local Aboriginal Land Council areas.

As well as the gazetted park and state conservation area, the planning area includes several Ministerial roads which are vested in the Minister for the Environment on behalf of the Crown for the purposes of Part 11 of the NPW Act. These roads do not form part of the gazetted area of park and state conservation area and were created by the *Forestry and National Parks Estate Act 1998* to ensure that the access arrangements which existed immediately before the parks creation (primarily for timber hauling and private property access) could continue, even if they were for purposes that did not meet the objectives of the NPW Act. The management of these roads is subject to the NPW Regulations and the requirements of the EPA Act.

3.2 LANDSCAPE CONTEXT

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

The geology, landform, climate and plant and animal communities of the area, plus its location, have determined how it has been used by humans. The isolation of the Carrai plateau has meant that much of the planning area has not been substantially influenced by human activities. Pre-contact Aboriginal use of the area is likely to have been seasonal, with much of the plateau being used for hunting and ceremonial purposes. Logging and grazing operations, with some minor mining operations, have been the major non-Aboriginal land use of the area, with resultant construction of roads and some minor clearing.

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.

3.3 MANAGEMENT DIRECTIONS

The primary emphasis of this plan is the conservation of the natural, cultural and wilderness values of the planning area. Visitor opportunities that are compatible with and promote the understanding and enjoyment of these values is also a key emphasis. These will be achieved through the following:

- protection of the 20 identified vegetation communities including subtropical rainforest, three old growth forest types and eight communities that are poorly represented in the NSW system of reserves;
- protection of the planning area's habitat values as a part of contiguous forest corridor from north of Dorrigo to the Manning River valley and as habitat for over 125 animal species including 14 that are endangered or vulnerable;
- control of introduced species;
- management of fire to protect life and property, conserve biodiversity and provide for the special requirements of threatened species, fire sensitive communities, or application of fire regimes designed to maintain ecosystems;
- research to improve knowledge of the planning area's resources and to evaluate and adapt management programs, in particular fire and pest species management;

- targeted research to identify appropriate management regimes for rare and threatened plant species, in particular *Grevillea guthrieana* and the small-leaved laurel (*Cryptocarya williwilliana*), as well as five other species which are either disjunct populations or at their limits of distributional range;
- identification of the occurrence of numerous endangered, vulnerable and rare species for which the planning area provides potential habitat;
- identification and conservation of Aboriginal and non Aboriginal heritage values including mythological sites and relics of past logging and mining activities; and
- provision of opportunities for self-reliant recreation in a remote natural setting consistent with the protection of the planning area's natural and cultural values, including wilderness values.

3.4 NATURAL AND CULTURAL HERITAGE

Landform, Geology, Soils and Hydrology

The planning area encompasses sections of the Carrai Plateau and surrounding gorge rim, encompassing a wide elevation gradient from 140 metres above sea level in the north east to 1,190 metres at Feltons Knob in the southern section.

Very little geological mapping is available for the planning area but the underlying sedimentary geology is the Parrabel Beds, believed to have formed in the late Carboniferous/ early Permian era approximately 270 million years ago. The Parrabel Beds consist of diamictite, sandstone, siltstone with minor limestone and basalt from the Late Triassic era approximately 220 million years ago. During the Late Permian, a large granitoid pluton intruded the sediments as part of the larger New England Batholith. This pluton is termed Carrai adamellite, and consists of granodiorite, monziorite and leuco-granite. Carrai adamellite dominates the central part of the planning area, centred on Feltons Knob. The southeastern section of the planning area has a much later granite intrusion known as Daisy Plains leucoadamellite. To some extent the topography on the plateau reflects the outcrops of granite, being somewhat gentler and with irregular drainage patterns. Spectacular granite tors are evident in the Felters Creek and Sandy Creek catchments.

Two distinctive soil types occur within the planning area:

- Minimal krasnozems, krasnozems, yellow earths and chocolate soils derived from granitoid parent material on the Carrai Plateau. These soil surfaces are friable, self-mulching or loose with a decomposing plant litter layer. The ground surface is stony with angular surface stones, generally less than 20 millimetres diameter. Erosion potential is moderate; and
- Krasnozems, xanthozems, minimal krasnozems, structured plastic clays and yellow podzolic soils derived from metasediment parent material along the steeply sloping and dissected edge of the escarpment. These soil surfaces are friable to self-mulching with a thick layer of decomposing plant litter (2-3 centimetres deep) and sub-angular to angular quartz and slate/phyllite rock fragments up to 600 millimetres in diameter, but usually up to 60 millimetres diameter. Erosion potential is low to very low.

Annual rainfall in the planning area is 1100-1600 millimetres, with highest rainfall occurring at the higher altitudes. There are three separate catchments in the planning area. The southern and western sections of the planning area are contained within the Kunderang Brook catchment; the northern section of the planning area into numerous tributaries of the Carrolls Creek and Felters Creek catchments; and the eastern section of the planning area is contained within the Stockyard Creek catchment. All of these systems ultimately feed into the Macleay River.

Native Plants

The planning area contains a variety of open forest and rainforest vegetation communities that supports a diversity of species, many of which are rare or vulnerable. Good populations of *Grevillea guthrieana*, listed as endangered in schedule 1 of the Threatened Species Conservation Act (TSC Act), exist at various locations within the planning area. Other species listed under schedule 2 (vulnerable) of the TSC Act are the shrub *Haloragis exalata* subspecies *velutina* and epiphytic orchid *Sarcochilus aequalis*. The very restricted small-leaved laurel (*Cryptocarya williwilliana*), restricted Hillgrove gum (*Eucalyptus michaeliana*) and rare daisy *Ozothamnus adnatus* have also been recorded. Eurabbie (*Eucalyptus bicostata*) reaches its northern distribution limit in the planning area and it is believed that an isolated population of flooded gum (*Eucalyptus grandis*) exists in the north-west and represents a significant range extension for this species (J. Gwalter, pers comm 2003).

Potential habitat exists within the planning area for numerous other rare species or those listed under the TSC Act. These include the endangered lithophytic orchid *Sarcochilus fitzgeraldii* and the vulnerable terrestrial orchid *Pterostylis torquata*, herb *Acomis acoma*, lianas *Cynanchum elegans*, *Tylophora woollsii* and *Parsonsia dorrigoensis* and Bendemeer white gum (*Eucalyptus elliptica*). The rare species *Boronia chartacea*, *Cryptocarya dorrigoensis* and *Cryptocarya floydii* may also occur.

Forest ecosystems were mapped within the planning area at a broad scale as part of the comprehensive regional assessment process. The most extensive forest ecosystem represented is diehard stringybark (*Eucalyptus cameronii*) / New England blackbutt (*E. campanulata*) association, followed by mid north coast wet brushbox (*Lophostemon confertus*) / tallowwood (*E. microcorys*) / Sydney blue gum (*Eucalyptus saligna*). Smaller and more uncommon forest ecosystems include snow gum (*Eucalyptus pauciflora*) / manna gum (*E. viminalis* / *nobilis*), brittle gum (*E. michaeliana*) and Eurabbie (*E. bicostata*).

Three old growth forest ecosystems occur in the south-eastern and north-eastern sections of the planning area:

- moist open escarpment white mahogany (*Eucalyptus acmenoides*);
- dry redgum (*Eucalyptus* sp.) / bloodwood (*Corymbia* sp.) / apple (*Angophora* sp.); and
- escarpment tallowwood / bloodwood.

Important areas of subtropical rainforests dominated by myrtles (*Backhousia myrtifolia*), figs (*Ficus* sp.) and giant stinging tree (*Dendrocnide excelsa*) occupy sheltered gullies in the southern section of the planning area. Small areas of swamp and heathland also occur at the heads of many catchments within the planning area.

The planning area demonstrates major facets of the evolution of plants and Australian rainforests with sub tropical and eucalypt transition zones represented. The limestone areas of the planning area are particularly significant as they contain endemic rainforest plant species such as *C. williwilliana*. It is possible that an assessment of the forests within the planning area may warrant their inclusion into the Gondwana Rainforests World Heritage Area (refer 1.2 World Heritage).

Native Animals

The planning area is part of a broad nearly contiguous link of relatively undisturbed forested land along the eastern escarpment and plateau, from north of Dorrigo to the Manning River valley. This forested area forms major habitat corridors within the region. Vegetated areas on state forest, Crown land and freehold land surrounding the planning area are also important in providing connectivity between communities and habitats. Many of these areas have been identified in the NPWS Key Habitats and Corridors project (NPWS, 2001).

Habitat connectivity is particularly important for maintaining viable populations of priority vertebrates of eastern tablelands and wet escarpment environments and contributes to the formation of an integrated regional reserve network. It is locally significant for the protection of the forested habitat between the Macleay River valley to the north-east and Kunderang Brook to the west. The extensive tracts of rainforest and high quality eucalypt forest within the planning area provide habitat for a variety of rainforest endemic fauna species and those reliant on large tracts of eucalypt forest. Over 125 recorded fauna species occur in the planning area, including 16 listed as vulnerable and endangered species under the *Threatened Species Conservation Act 1995* (refer Table 1).

Table 1: Endangered and vulnerable fauna recorded within the planning area

Common Name	Scientific Name	Status
Hastings River mouse	<i>Pseudomys oralis</i>	Endangered
Giant Barred Frog	<i>Mixophyes iteratus</i>	Endangered
Spotted-tailed quoll	<i>Dasyurus maculatus</i>	Vulnerable
Parma wallaby	<i>Macropus parma</i>	Vulnerable
Red-legged pademelon	<i>Thylogale stigmatica</i>	Vulnerable
Eastern pygmy possum	<i>Cercartetus nanus</i>	Vulnerable
Yellow-bellied glider	<i>Petaurus australis</i>	Vulnerable
Brush-tailed phascogale	<i>Phascogale tapoatafa</i>	Vulnerable
Brown Treecreeper (Eastern subspecies)	<i>Climacteris picumnus victoriae</i>	Vulnerable
Glossy black cockatoo	<i>Calyptorhynchus lathami</i>	Vulnerable
Powerful owl	<i>Ninox strenua</i>	Vulnerable
Masked owl	<i>Tyto novaehollandiae</i>	Vulnerable
Sooty owl	<i>Tyto tenebricosa</i>	Vulnerable
Rufous scrub-bird	<i>Atrichornis rufescens</i>	Vulnerable
Little bent-wing-bat	<i>Miniopterus australis</i>	Vulnerable
Eastern bent-wing bat	<i>Miniopterus schreibersii</i>	Vulnerable

Source: NPWS ATLAS of NSW Wildlife

Significant fauna species likely to occur within the planning area but not yet recorded include: the endangered brush-tailed rock-wallaby (*Petrogale penicillata*), vulnerable olive whistler (*Pachycephala oliveacea*); barking owl (*Ninox connivens*); square-tailed kite (*Lophoictinia isura*); rufous bettong (*Aepyprymnus rufescens*); koala (*Phascolarctos cinereus*); large-eared pied bat (*Chalinolobus dwyeri*); greater broad-nosed bat (*Scoteanax rueppellii*); eastern freetail bat (*Mormopterus norfolkensis*); eastern false pipistrelle (*Falsistrellus tasmaniensis*); and long-nosed potoroo (*Potorous tridactylus*).

Large forested areas such as the planning area are important for the maintenance of viable populations of native carnivores, such as the quoll and dingo, which require stable prey bases distributed over vast tracks of undisturbed forests. The Yellow-bellied Glider and large forest owl species also rely on these large areas of forest. There are occasional reports from the area of sightings of the endangered eastern quoll (*Dasyurus viverrinus*), but despite extensive searches, no positive sightings have been made (D. Scotts, pers comm. 2003).

The planning area has been listed under schedule 2 of the *Rural Lands Protection Act 1998* (RLP Act) because of its high quality dingo habitat (refer section 3.8).

Wilderness

An area of 3,530 hectares within the southern section of Carrai National Park was gazetted as the Carrai Wilderness in November 2002 (see Map 1). The only significant human modifications within this area consist of evidence of past logging activities such as log dumps and trails. The declared Carrai Wilderness excludes Cochrane Road and Warrick Roads which provide access to Marys View day use facility in the adjacent Oxley Wild Rivers National Park as well as land holder access along Warrick Road. Carrai Road is also excluded from the declared wilderness because it is used by landholders on the Carrai Plateau to gain access to their properties.

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.

The planning area lies within the Thunggutti and Kempsey Local Aboriginal Land Councils. The rugged and steep escarpment country on the eastern edge of Stockyard Creek represents the boundary of the traditional lands of the lowland Birpai and Ngaku peoples, and the Thunggutti of the hinterland valleys and tablelands.

The Thunggutti comprised six to eight dialect groups, two of which, the Nulla-Nulla and the Conderang, occupied the upper catchment of the Macleay River system. Archaeological excavations have established that Aboriginal people occupied the New England Tablelands as long as 4,200 years ago. A burial from the Kunderang section of Oxley Wild Rivers National Park (15 kilometres to the west of the planning area) has been dated at 420 years old.

The pattern of Aboriginal occupation and use of the upper Macleay River system is complex. It is believed that Aboriginal groups moved from the coastal hinterlands to the Tablelands during the summer months and returned to the coastal hinterlands for the winter. It is thought that some groups remained in the upper gorge areas for up to four months during spring and it has been proposed that there was a permanent Aboriginal occupation of these lands by a small number of people. Some 15 different food resources, both aquatic and terrestrial, have been used by Aboriginals in the area and rainforest plant communities are known to have been particularly important.

During the early to middle 1800s, the rugged "falls country" at the head of the Macleay River provided refuge for many Aboriginal people. It is likely that the isolation of the Carrai plateau provided one such refuge. As surrounding pastoral holdings such as Towal Creek Station and East Kunderang grew, some Aboriginal groups gained employment as farmhands and stockmen. The knowledge and skills of these Aboriginal stockmen were held in high regard by the landholders, and Aboriginal stockmen were employed on neighbouring stations mustering and dingo trapping on the Carrai Plateau until at least the 1940s, providing a valuable continuous association with the land (Cohen, 1987).

There are records of two sacred sites in the north-western section of the planning area. The Carrai Waterholes, a very important sacred site to senior men of the Armidale and Bellbrook regions, are located within 5 kilometres of the planning area and are well documented. There are also other known but as yet unrecorded sites within and surrounding the planning area.

The NPWS has a statutory responsibility for the protection of Aboriginal objects and Aboriginal Places. While the NPWS has legal responsibility for the protection of Aboriginal sites, Aboriginal communities are consulted and are involved in the management and protection of Aboriginal objects, gazetted Aboriginal Places and related issues and in the promotion and presentation of Aboriginal culture and history of areas under the management of NPWS.

Non-Aboriginal Heritage

John Oxley was the first European to visit the New England Tablelands, in 1818. He was followed by cedar loggers (mostly former convicts), who moved into the river valleys of the north coast during the early 1830s. Graziers followed later to take up the fertile river flats, and eventually moved up the rivers valleys and onto the Tablelands.

Tin and gold mining occurred along various creeklines during the early part of the 20th century and again in the 1960s. Initially, transportation of minerals was by mules along a trail down Landers Ridge towards the Macleay River. This trail is believed to have been constructed around the turn of the century by the Government to facilitate access to the plateau, and remnants include vertical dry stone retaining walls up to 6 metres in height. Subsequent mining activities in the 1960s yielded substantial amounts of previously unknown gold (J. Gwalter, pers. comm, 2003).

The difficulties of access restricted use of the plateau to limited grazing and mining until the construction of Carrai Road in 1943. Carrai Road remains the only vehicle access route to the area.

Large areas of intensive logging has occurred in the area since 1946, with rainforest logging peaking in the 1960s, primarily of red cedar (*Toona ciliata*), Tallowwood (*Eucalyptus microcorys*) and Sydney blue gum (*Eucalyptus saligna*). Several timber mills were established around the area in the mid 1950s, both within the planning area at Daisy Plains and outside at Kookaburra. Both sites were thriving communities with schools, stores, houses and community halls. The school building and forest foreman's house still remain at Kookaburra. Rainforest logging ceased in 1978, whilst parts of Cochrane and Carrai State Forests were heavily logged for eucalypt species from the mid 1980s to early 1990s. Major relics in the planning area from former logging include the Daisy Plains Huts consisting of 5 structures including washhouse, kitchen, sleeping quarters, toilet and storage shed and the large sawmill and village site (including 2 boilers) within the park at Daisy Plains. Numerous smaller relics exist such as log dumps, bridges, quarries and an informal lookout and carpark near Felters Creek.

3.5 VISITOR USE

The planning area is rugged and remote with a diversity of landscapes and forest types providing opportunities for solitude and self-reliant recreation such as bushwalking, nature study and camping. The area is remote from settlement and a sense of solitude is readily experienced. The declared wilderness within the park enhances the solitude and recreational values of wilderness areas in the adjoining Oxley Wild Rivers National Park.

Public vehicle access to the planning area is by four wheel drive vehicle along Carrai Road, the only road onto the Carrai Plateau. Carrai Road, Warrick Road, Cochrane Road/ Trail and Mines Road provide 4WD access within the planning area. Dry weather 4WD access is available along Warrick Road to Mary's View lookout, which is located within the adjacent Oxley Wild Rivers National Park. There is an informal lookout near Felters Creek that is shown on old forestry maps, but there is now no vehicular access to this site.

Visitor numbers are low and other than the above mentioned roads there are no visitor facilities provided in the planning area. Daisy Plains Huts is currently utilised by visitors on an ad hoc basis as a remote camp. No additional facilities are proposed except for minor interpretative facilities at Daisy Plains and Kookaburra, which is just outside the planning area. There are no known commercial or organised events currently operating within the planning area.

Horse riding is not an established use within the area, apart from the mustering of stock in remoter sections of land adjacent to the park. The erodible nature of the soils of the planning area, wilderness declaration and potential for weed invasion precludes horse riding being a permissible activity within the planning area.

3.6 MANAGEMENT OPERATIONS

Carrai, Warrick and Mines Roads and Cochrane Road/ Trail provide the main access in the planning area and are used for park management activities and private property access. These roads cross the boundary of a number of land tenures. Sections of Carrai, Mines and Cochrane Roads are Ministerial roads vested in the Minister for the Environment to ensure the continuation of access arrangements that existed

immediately before the park and state conservation area's reservation (refer 3.1 Location, gazettal and regional setting). A Memorandum of Understanding (MOU) exists between NPWS, SFNSW, Walcha Council, Kempsey Shire and Armidale Dumaresq Councils about maintenance of Carrai and Cochrane Roads. Access to the north east of the planning area is with the permission of private property owners adjacent to the Macleay River.

A number of management trails in the planning area provide additional access for park management activities such as fire and pest species control (see map). These trails are for use by authorised vehicles only and are not available for public vehicle recreational use. A small number of NPWS management trails in the planning area provide the only practicable access to private inholdings. Access for these purposes should be formalised consistent with the NPWS Access to Inholdings Guidelines.

The planning area also contains a number of roads and snig tracks used in the past for timber harvesting. These tracks are no longer required for regular park management activities or visitor access and can result in erosion, assist weed invasion by providing disturbed sites, provide pathways for wild dogs and foxes, opportunities for inappropriate recreation and detract from wilderness values.

A gravel pit is located along Cochrane Road, 2 kilometres west of Daisy Plains Huts near Feltons Knob. The gravel pit provides valuable material for the maintenance of roads in the planning area and some sections of roads leading into the planning area.

Huts at Daisy Plains are regularly used by NPWS for management purposes and have recently been restumped and weather proofed. They provide accommodation for staff undertaking management works in the planning area and in the adjacent Oxley Wild Rivers National Park.

3.7 OTHER USES

Buildings, structures and modified natural areas

The Daisy Plains Huts are relics from past logging activities and are used by NPWS for management purposes as well as occasional use by visitors for overnight camping (refer Non-Aboriginal History, Visitor use and Management Operations). The current low level of visitor use is considered appropriate in this remote setting. There has been no demonstrated demand for any adaptive reuse or modification of the buildings for any other purposes. Because of the remoteness and ongoing requirement for management purposes it is not appropriate at this time to consider any adaptive re-use lease over these buildings.

It is however possible that there could be interest in the huts and surrounds for community activities. Such activities would require a licence under section 151B(3) of the NPW Act and would only be considered if there is no conflict with NPWS management requirements and subject to protection of natural and cultural heritage values. Licences for these activities are limited to a period not exceeding three consecutive days.

Elsewhere in the planning area past logging activities such as log dumps have modified the native vegetation cover. These areas will be allowed to regenerate.

Mining and mineral exploration

There are at least 13 identified inactive mine sites in the planning area. It is likely that further surveys could locate additional sites. There are no current mining leases known in the planning area. The last known mining in the area occurred during the 1960s.

The Department of Mineral Resources (DMR) and the Department of Planning, Infrastructure and Natural Resources are the lead authorities for mining, mineral exploration and mine site rehabilitation. The DMR is required under the EPA Act to undertake an environmental assessment for mining activities in SCAs in consultation with NPWS through the issuing of licences for mineral exploration and mining. The written concurrence of the Minister for Environment is required before a mining interest can be granted in an SCA.

3.8 THREATS TO VALUES

Introduced Plants

The Northern Tablelands and Mid North Coast Region Draft Pest Management Strategies establish the strategic directions for pest management activities within the planning area. These plans identify major pest populations within the planning area, and provide a brief summary of control programs proposed or currently undertaken.

Introduced plants such as cobbler's peg (*Bidens pilosa*), crofton weed (*Ageratina adenophora*), Parramatta grass (*Sporobolus spp.*), lantana (*Lantana camara*) and blackberry (*Rubus fruticosus*) are found within the planning area. Annual spraying programs are undertaken where necessary to suppress blackberry and Parramatta grass, whilst lantana occurs predominantly in isolated and remote patches and is controlled where possible. In the past illegal crops have been found within the planning area but have been removed. A complete survey of weed species and their distribution within the planning area has not been undertaken.

A small pine plantation is located within the planning area at Daisy Plains Huts, originating from when the land was managed by SFNSW. Various species of pines were planted as a test for fast growing soft wood plantations. Seedlings from the plantation are beginning to invade the surrounding native vegetation. A strategy for the management of all plantations in the Northern Branch is currently in preparation and will guide removal and rehabilitation of plantations in the planning area. A time frame for the removal of pine plantations should consider the feasibility of commercially harvesting the pines while ensuring optimal conditions for regeneration of native vegetation, including seed bank viability at the site.

Introduced Animals

Introduced animals such as feral cattle (*Bos taurus*), wild dogs (*Canis familiaris*), rabbits (*Oryctolagus cuniculus*), hares (*Lepus capensis*), feral cats (*Felis catus*), pigs (*Sus scrofa*), black rats (*Rattus rattus*), mice (*Mus musculus*) and foxes (*Vulpes vulpes*) have been recorded in the planning area. It is possible that other feral species such as deer (*Cervidae*), and goats (*Capra hircus*) also occur within the planning area. Trout were introduced into Carrolls, Felters and Bluff Creeks prior to the area's gazettal as NPWS

estate. A complete survey of introduced animals and distribution within the planning area has not been undertaken but populations of introduced animals appear to be low.

Wild dogs, including dingoes, have been declared as pest animals under the *Rural Lands Protection Act* (RLP Act) throughout NSW. Hence, the NPWS has a statutory obligation to control wild dogs on its estate. Under the RLP Act, however, public lands that are considered to contain high quality dingo habitat in Schedule 2 of the Wild Dog Control Order will be managed with the dual objectives of managing wild dogs while at the same time conserving dingoes. This includes the planning area. This requires public land managers, such as the NPWS, to assist in the preparation of a local wild dog management plan in accordance with the RLP Act. These plans are to identify methods for the control of wild dogs and the conservation of dingoes and are to be approved by the Armidale and Kempsey Rural Land Protection Boards (RLPB).

Straying stock from neighbouring properties are present in some locations in the planning area and pose a threat to many values including weed invasion. Where possible, fencing is maintained on a cooperative basis with neighbours, however where fencing is not possible or impractical, other cooperative arrangement with neighbours will be implemented to limit the effects of grazing in the planning area.

Fire

NPWS recognises that fire is a natural feature of the environment of the planning area and is essential to the survival of some animal and plant communities. The frequency of fire, its intensity, and the season in which it occurs are some of the major factors influencing the distribution of vegetation communities and fauna species. An inappropriate burning regime or wildfire may contribute to significant damage to cultural features and a loss of biodiversity in the planning area and may threaten neighbouring properties.

An unplanned wildfire in September 2003 burnt much of the western section of the planning area, and over 70% of the planning area was burnt as a result of unplanned wildfires during 2000-2001. These fires may have had a detrimental effect on the biodiversity of the planning area, in particular the rainforest communities and fire sensitive vulnerable species.

Fire management strategies detailing life, property and natural and cultural resource protection strategies have been developed as part of the preparation of the Macleay Gorges Reserves Fire Management Strategy.

NPWS maintains cooperative arrangements with surrounding landowners and RFS brigades and is actively involved in the Walcha, Armidale-Dumaresq and Kempsey Bush Fire Management Committees. Cooperative arrangements include approaches to fuel management, support for neighbours fire management efforts and information sharing.

Soil Erosion

Soils in the planning area are highly erodible if disturbed, but due to the largely unmodified nature of most of the planning area it is a relatively minor problem limited to roads and trails and other modified areas such old mine sites and log dumps.

4. MANAGEMENT ISSUES AND STRATEGIES

Current Situation	Desired Outcomes	Strategies	Priority
<p>Soil and water conservation</p> <p>Soil erosion hazard is highest on steep slopes, disturbed areas such as old log dumps, mine sites, roads and trails.</p> <p>Old mining areas have some exposed shafts and dredging areas that are a minor erosion risk.</p>	<ul style="list-style-type: none"> • Soil erosion is minimised. • Water quality and health of streams within the planning area is maintained or improved. 	<ul style="list-style-type: none"> • Undertake all works in a manner that minimises erosion and water pollution. • Maintain roads required for public vehicle access and management purposes (see map) to four wheel drive, dry weather standard. • Close former log dumps and trails no longer required for management and allow to naturally regenerate. Undertake rehabilitation works if necessary. • Support the Mid North Coast Catchment Management Board in protection of catchment values. • In consultation with DMR, assess erosion and soil and water contamination risk of old mining areas and rehabilitate where necessary. 	<p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>Low</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Native plant and animal conservation</p> <p>The planning area protects a diversity of plant and animal communities and species including habitat and potential habitat for a number of endangered and vulnerable species. Old growth forests, rainforest communities and eastern tableland and escarpment environments are particularly important.</p> <p>The planning area demonstrates values that warrant investigation for its nomination for World Heritage listing as part of the Gondwana Rainforests.</p> <p>Vegetated areas on SFNSW estate and private land adjacent to the planning area are important in providing connectivity between vegetation communities and habitat and as a corridor for native animals.</p>	<ul style="list-style-type: none"> • All native plant and animal species and communities are conserved. • Structural diversity and habitat values are restored in areas subject to past logging. • The planning area is managed in accordance with the principles of the World Heritage Convention. • Conservation values of the planning area are enhanced by sympathetic management of adjacent land. 	<ul style="list-style-type: none"> • Protect native vegetation communities by implementation of appropriate fire regimes and control of introduced plant and animal species. • Implement relevant actions in approved recovery plans for relevant threatened species as prepared as funds permit. • Liaise with the Commonwealth Department of Environment and Heritage to assess the planning area for its suitability for nomination on the World Heritage list as an addition to the Gondwana Rainforests. • Manage the planning area consistent with this plan to ensure the conservation, presentation and, where necessary, rehabilitation of its values, including potential World Heritage values. • Work with relevant neighbours, vegetation management committees and other organisations to encourage conservation of native vegetation and wildlife corridors in the vicinity of the reserve. • Encourage further research into regionally significant, endangered and vulnerable species in the planning area, particularly <i>Cryptocarya williwilliana</i> and <i>Grevillea guthrieana</i>. 	<p>High</p> <p>High</p> <p>Medium</p> <p>Medium</p> <p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Introduced species</p> <p>Introduced plant species recorded in the planning area include cobbler's peg, Crofton weed, Parramatta grass, lantana, blackberry, and various species of pine. An annual control program is conducted for known locations of blackberry, Parramatta grass and lantana.</p> <p>Wild dogs are controlled along the boundary of neighbouring properties through implementation of annual ground baiting programs. The planning area is listed as "controlled land" under the RLP Act, for the conservation of dingoes.</p> <p>Feral cats, black rats, feral pigs, mice, rabbits, hares and foxes are known to occur in the planning area. Feral deer and feral goats may also occur.</p> <p>Cattle are known to enter the planning area where boundary fencing is inadequate.</p>	<ul style="list-style-type: none"> • Introduced species are controlled and where possible eradicated. • The impact of introduced species on native species and neighbouring lands is minimised. • Domestic stock does not enter the reserve. 	<ul style="list-style-type: none"> • Implement control programs in accordance with Regional Pest Management Strategies and individual pest species control plans. • Develop and implement a program to monitor the distribution of introduced species in the planning area. • Control and where possible eradicate introduced pest species within the planning area. Utilise control techniques that have minimal impact on native ecosystems and overall planning area values. Review effectiveness of control programs, and modify priorities and implementation where necessary. • Remove and rehabilitate the pine plantation in the planning area. • Assist the Armidale and Kempsey RLPBs in the preparation and implementation of a local wild dog management plan in accordance with the RLP Act, which addresses the management of wild dogs and the conservation of dingoes in the planning area. • Undertake or encourage research into DNA analysis to determine the degree of hybridisation of dingoes in the planning area. 	<p>High</p> <p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Strategies	Priority
		<ul style="list-style-type: none"> • Undertake cooperative feral animal control if required, with SFNSW, RLPB, neighbours, and Macleay Wild Dog Associations using appropriate control measures such as ground baiting and trapping. • In conjunction with neighbours, maintain boundary fences and determine strategies to exclude stock where boundary fencing is difficult. 	<p>High</p> <p>High</p>
<p>Wilderness</p> <p>3,530 ha of the southern section of Carrai National Park is declared wilderness under the <i>Wilderness Act 1987</i>. It provides opportunities for solitude and self-reliant recreation and enhances the values of wilderness areas in the adjoining Oxley Wild Rivers National Park.</p> <p>The only significant human modifications within this area are evidence of past logging activities such as log dumps and trails.</p>	<ul style="list-style-type: none"> • Wilderness landscapes, plants and animals continue to evolve in an unmodified environment and without significant human interference. • Opportunities for solitude and appropriate self-reliant recreation are maintained. 	<ul style="list-style-type: none"> • Prohibit public vehicle access and commercial tourism activities within declared wilderness areas consistent with the <i>Wilderness Act 1987</i>. • Promote public awareness and appropriate use of wilderness areas. • Allow research in declared wilderness if it does not permanently diminish wilderness values and could not be undertaken in non-wilderness areas or assists in the protection of values of the planning area. • Allow natural regeneration of disturbed areas and if necessary undertake active restoration. 	<p>High</p> <p>High</p> <p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Fire management</p> <p>Much of the western section of the planning area was burnt in late 2003, and over 70 % of the planning area was burnt by wildfires during 2000-2001. These fires may have had a detrimental effect on the rainforest and old growth forest communities and fire sensitive species.</p> <p>Fire management strategies have not yet been prepared for the planning area. To protect the public, there is a need to close roads into the planning area during fire events.</p> <p>To protect the public, there is a need to close roads into the planning area during fire events.</p>	<ul style="list-style-type: none"> • Life, property and natural and cultural values within and adjacent to the planning area are protected from fire. • Fire regimes are appropriate for conservation of plant and animal communities. • The potential for spread of unplanned fires on, from, or into the reserve is minimised. 	<ul style="list-style-type: none"> • Prepare and implement fire management strategies for the planning area that identify threats and management strategies for protection of life, property, natural and cultural values, including protection of old growth forest, rainforest and wilderness values. • Use prescribed fire to achieve a variety of fire regimes appropriate to maintaining a diversity of vegetation types and to maintain habitat suitable for species with specific requirements. • Exclude fire from rainforest and habitats of fire sensitive plant and animal species as far as possible. • Participate in Walcha, Armidale-Dumaresq and Kempsey Bush Fire Management Committees. Maintain coordinated and cooperative arrangements with Rural Fire Service Brigades and neighbours with regard to fuel management, fire suppression and notification procedures. • Encourage further research into the ecological effects of fire in the planning area and appropriate burning regime. 	<p>High</p> <p>High</p> <p>High</p> <p>High</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Cultural heritage</p> <p>The planning area is part of a landscape associated with both coastal and Tablelands Aboriginal communities.</p> <p>Aboriginal cultural heritage sites are located within and surrounding the planning area but there has been no systematic surveys of Aboriginal or non-Aboriginal cultural heritage values in the planning area. There are records of two mythological sites in the north-western section of the planning area.</p> <p>The significance of the abandoned mines, old mining trails, old forestry huts and associated sawmill sites and logging sites is unknown.</p>	<ul style="list-style-type: none"> • Cultural heritage sites within the planning area are identified, conserved, recorded and managed in accordance with their significance. • Aboriginal cultural heritage values are managed in partnership with the Aboriginal community. • Community awareness of the cultural heritage value of the planning area is increased. 	<ul style="list-style-type: none"> • Assess sites/areas of cultural heritage for significance and management requirements, including assessment of risk associated with public access to past logging and mining operations. Prepare conservation management plans where necessary. • Consult and involve the local Aboriginal community, relevant elders, individuals and land councils in all aspects of management of identified Aboriginal sites, places and values. • Undertake cultural heritage assessment before undertaking works which may have the potential to impact on cultural heritage sites and places. • Encourage surveys and research into cultural heritage values in the planning area. • Record Aboriginal and non-Aboriginal cultural heritage features on the NPWS Aboriginal Heritage and Historic Heritage Information Management Systems. • Provide interpretation of non-Aboriginal cultural heritage values of the planning area at appropriate sites, in particular Daisy Plains and Daisy Plains Huts (refer Visitor use). 	<p>High</p> <p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Visitor use</p> <p>Carrai, Warrick and Mines Roads and Cochrane Road/ Trail provide the main public vehicle access in the planning area.</p> <p>The planning area receives very low levels of visitor use. Visitors are predominantly involved in self-reliant recreational activities such as remote camping and bushwalking. Horse riding has the potential to impact upon natural values and there is no established history of recreational use in the planning area.</p> <p>There is an informal lookout over Felters Creek that appears on old forestry maps but is no longer accessible by public vehicles.</p> <p>The huts at Daisy Plains are occasionally used by visitors as a remote camp.</p> <p>There are currently no licensed commercial operations in the planning area.</p>	<ul style="list-style-type: none"> • Visitor use is ecologically sustainable. • The planning area provides opportunities for self-reliant recreation in a remote natural setting with no visitor facilities other than interpretative information. • The local community is aware of the significance of the area and of management programs. 	<ul style="list-style-type: none"> • Allow public vehicle access along Carrai, Warrick, Cochranes and Mines Roads (see map). These roads will be maintained to at least a dry weather 4WD standard. • Public vehicle access will not be permitted on management trails (see map). • Promotion of the planning area will be limited to interpretive information and educational material about the opportunities for self-reliant recreation, the remote nature of the planning area, minimal impact use and park management activities. • Visitor access west of Felters Creek bridge will not be promoted. • Provide interpretative information at key access points such as Daisy Plains Huts, Daisy Plains and at Kookaburra, 20kms to the south of the planning area. • Allow overnight camping at Daisy Plains huts. Monitor use of the huts. If warranted consider the need for restrictions such as bookings. • Permit commercial activities, organised group recreational and educational visits and adventure activities, subject to limits on numbers and other conditions to minimise impacts. 	<p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>Medium</p> <p>High</p> <p>High</p>

Current Situation	Desired Outcomes	Strategies	Priority
		<ul style="list-style-type: none"> <li data-bbox="1218 212 1955 320">• Prohibit public vehicle access, cycling and commercial tourism activities within declared wilderness areas (refer Wilderness). <li data-bbox="1218 360 1955 469">• Allow cycling along public roads, park roads and management trails outside of declared wilderness. <li data-bbox="1218 509 1955 584">• Monitor impacts and if necessary restrictions may apply to use of management trails. <li data-bbox="1218 624 1955 695">• Horse riding will not be permitted in the planning area or on Ministerial roads 	<p data-bbox="1993 212 2063 244">High</p> <p data-bbox="1993 360 2063 392">High</p> <p data-bbox="1993 509 2063 541">High</p> <p data-bbox="1993 624 2063 655">High</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Research</p> <p>Scientific study can improve understanding of the planning area's natural and cultural heritage, the processes that affect them and the requirements for management of particular species.</p> <p>Current and previous research projects include monitoring of the rufous scrub bird and research into the effects of fire on small mammal assemblages.</p>	<ul style="list-style-type: none"> Research enhances the management information base and has minimal environmental impact. 	<ul style="list-style-type: none"> Undertake and/or encourage research to improve knowledge and management of natural and cultural heritage, with particular emphasis on the effects of grazing, pest species and fire on biodiversity and threatened species. Prepare a prospectus to encourage and guide research by educational organisations and others in the planning area. 	<p>Medium</p> <p>Medium</p>
<p>Mining and mineral exploration</p> <p>Historic mine sites in the planning area require an assessment to determine any public safety hazards.</p> <p>There are no known current mining leases or applications for mining or exploration activities within the SCA.</p>	<ul style="list-style-type: none"> Mining and mineral exploration activities have minimal impact on natural and cultural values. 	<ul style="list-style-type: none"> Investigate public safety implications and responsibilities of the DMR and NPWS with respect to historic mining sites. Where risks to the public are identified, remedial action will be undertaken. Applications for mining or mineral exploration in the SCA will be subject to environmental assessment by DMR and will require the concurrence of the Minister for the Environment. Assessment will consider the conservation of natural and cultural resources and ensure best practice management. Review the classification of the SCA after 5 years to determine whether it should receive either a national park or nature reserve classification in accordance with section 47M of the Act and in consultation with the Minister administering the <i>Mining Act 1992</i>. 	<p>High</p> <p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Management operations</p> <p>Vehicle access to the planning area is required by NPWS for control of introduced species, fire and other management purposes.</p> <p>An MOU between NPWS, SFNSW, Walcha Shire, Kempsey Shire and Armidale Dumaresq Councils outlines arrangements for maintenance of roads where roads traverse several tenures.</p> <p>Portions of Mines Rd, Carrai Rd and Cochrane Road/ Trail are classified as Ministerial Roads. Recent additions to the planning area mean that portions of Mines Road are no longer needed for private property or SFNSW access and should be incorporated into the park and SCA.</p> <p>A gravel pit on Cochrane Road has value for NPWS road maintenance works and for fire management purposes.</p> <p>The bridge over Felters Creek on Mines Road within the park is in need of repair to ensure emergency access to the north-eastern section of the planning area. Other areas require access through private property for management purposes.</p>	<ul style="list-style-type: none"> • Management facilities adequately serve management needs and have minimal impact. 	<ul style="list-style-type: none"> • Maintain roads and trails necessary for management purposes to four wheel drive dry weather standard (see map). • Close, and if necessary rehabilitate, old logging snig tracks and any other trails not identified for public or management access (see map). • Continue ongoing liaison with relevant Shires and neighbours about the need for road maintenance activities in accordance with the MOU between NPWS, SFNSW and relevant local governments. • Pursue gazettal of those sections of Mines Road designated as Ministerial Road to the park or SCA and retain as a public access road to Felters Creek. • Retain the gravel pit on Cochrane Road for road maintenance and fire management purposes, and allow SFNSW and relevant Councils access with prior consent for maintenance of roads that lead to the planning area. • Undertake repairs and maintenance of Felters Creek bridge for management access only. 	<p>High</p> <p>Medium</p> <p>High</p> <p>High</p> <p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Huts at Daisy Plains are regularly used for management purposes.</p> <p>A small number of NPWS management trails in the planning area provide the only practicable access to private inholdings.</p>		<ul style="list-style-type: none"> • Maintain the Daisy Plains huts for management purposes. Ensure maintenance is consistent with any heritage values that may be determined (refer Cultural heritage). • Liaise with neighbours to seek formal agreement for NPWS vehicle access through private property to the planning area. • Formalise access arrangements with neighbours who use NPWS management trails to access private inholdings consistent with the NPWS Access to Inholdings Guidelines. 	<p>Medium</p> <p>High</p> <p>Medium</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.

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