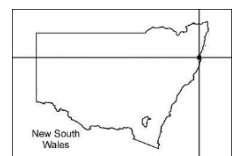
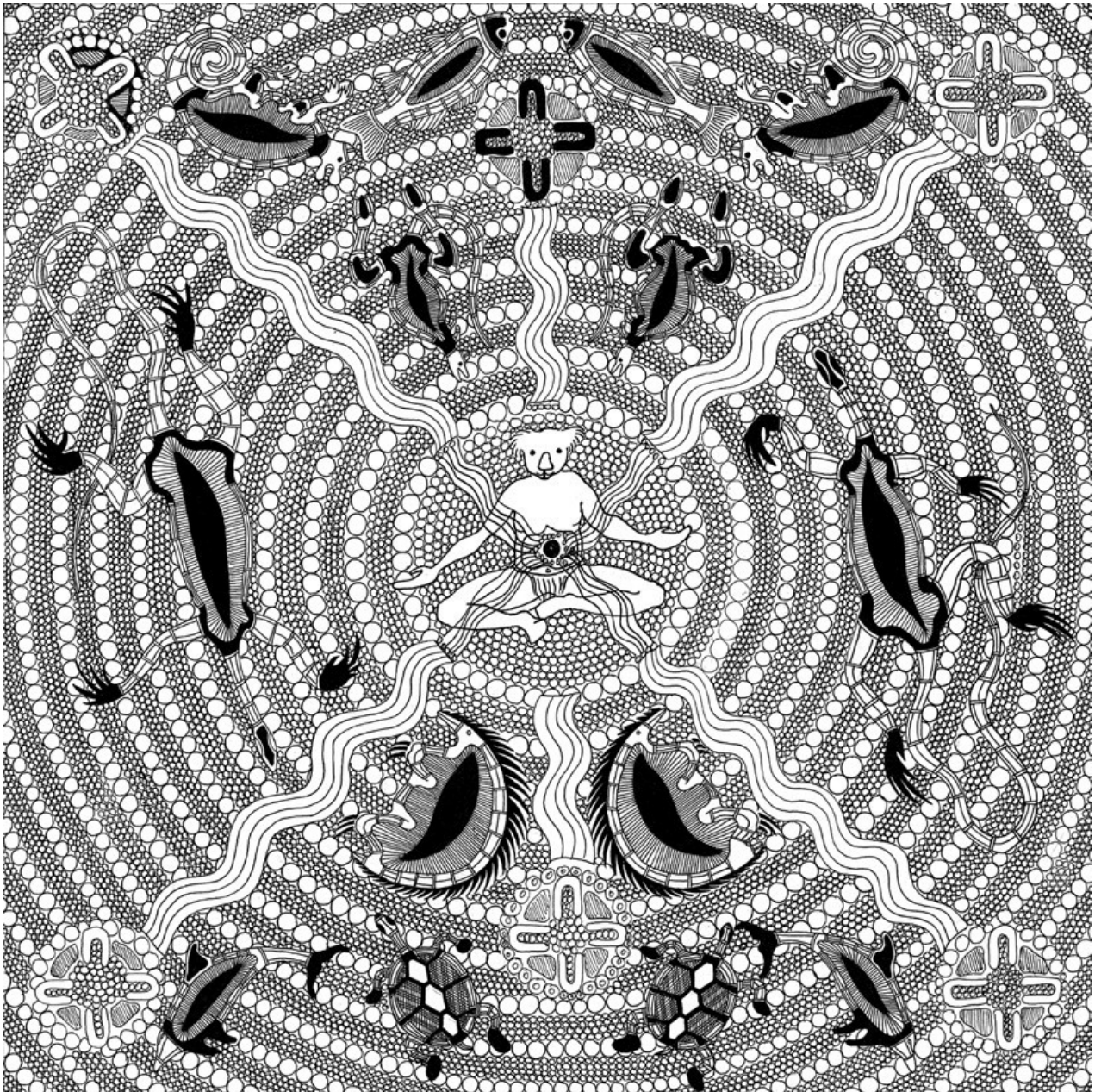




NSW NATIONAL PARKS & WILDLIFE SERVICE

Yarriabini National Park

Plan of Management



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This plan of management was prepared by the staff of the NSW National Parks and Wildlife Service (NPWS), part of Department of Planning, Industry and Environment, and with the involvement of members of the Aboriginal Consultative Group.

For additional information or any inquiries about Yarriabini National Park or this plan of management, contact the NPWS Coffs Coast Area Office at Marina Drive, Coffs Harbour Jetty or by telephone on 02 6652 0900.

Aboriginal and/or Torres Strait Islander peoples should be aware that this publication may contain the images of people who have passed away.

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Welcome to Country

This plan talks about Yarriabini National Park, a special part of traditional Aboriginal Country, of shared significance to the Dunghutti, Ngambaa and Gumbaynggirr peoples.

The National Parks and Wildlife Service has recognised the ongoing strong connection of these Aboriginal peoples to this Country through signing a memorandum of understanding. This memorandum of understanding provides for the ongoing involvement of the Aboriginal community in the joint management of Yarriabini National Park, principally through an Aboriginal Consultative Group.

This plan confirms the importance of involving Aboriginal people in the management of the park, and the ongoing central role of the Aboriginal Consultative Group.

The members of the Aboriginal Consultative Group welcome visitors to this Country, and request that our rights and our long and ongoing traditional association are recognised by all.



Photo 1 Members of the Yarriabini National Park Aboriginal Consultative Group at their first culture camp

Yarriabini National Park Plan of Management

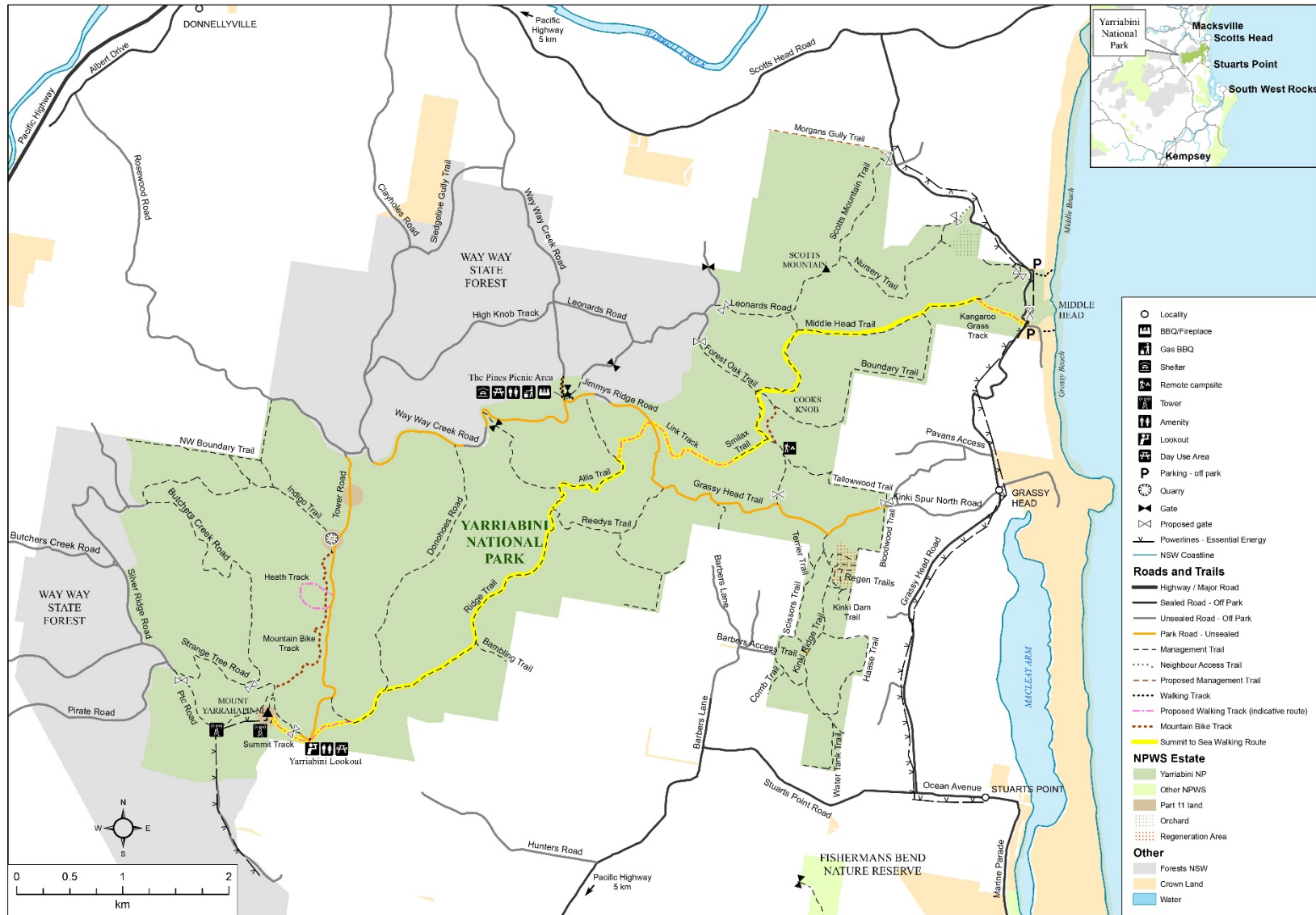


Figure 1 Yarriabini National Park

1. Location, reservation and regional context

Yarriabini National Park is located on the Mid North Coast of New South Wales, approximately 10 kilometres south of Macksville between the villages of Stuarts Point, Scotts Head and Warrell Creek.

Yarriabini National Park (referred to as ‘the park’ in this plan) was originally reserved as Yarrahapinni National Park on 1 January 2003 under the *National Parks Estate (Reservations) Act 2002*. Both the names *Yarriabini* and *Yarrahapinni* mean ‘koala rolling down mountain’ in the local Dunghutti and Ngambaa languages. Following consultation with the Aboriginal community, the name Yarriabini was identified as being the more appropriate spelling of the name of the park and this was changed on 23 July 2003 by notice published in the *Government Gazette*.

The reservation of the park was an outcome of the North East Regional Forest Agreement. Following assessment of the natural, cultural, economic and social values of forests, the forest agreement provided for major additions to the park system including the establishment of Yarriabini National Park. The original section of Yarriabini National Park was previously part of Way Way and Yarrahapinni state forests.

In 2010, an area east of Grassy Head Road encompassing Middle Head was added to the park. This area had formerly been Yarriabini State Conservation Area, an area of Crown land which was reserved in December 2005.

The park is 2192 hectares and encompasses a short stretch of coastline down to the mean high water mark, but does not include the intertidal zone.

In addition, the park also includes unreserved lands which are vested in the Minister administering the *National Parks and Wildlife Act 1974* for the purposes of Part 11 of that Act. The Part 11 lands incorporate (see Figure 1 on the centre pages):

- the main site used by telecommunication towers on the summit of Mount Yarrahapinni
- two quarry sites in the centre of the park
- all park roads and management trails.

The park is a significant remnant of coastal forest which encompasses a great diversity of landforms and habitats, and links Mount Yarrahapinni to the coast. Mount Yarrahapinni is a major feature of the coastal range and Yarriabini Lookout, just east of its summit, provides extensive views over the Lower Macleay.

The park is highly significant to the Dunghutti, Ngambaa and Gumbaynggirr Aboriginal peoples. It lies within the areas administered by the Kempsey and Unkya local Aboriginal land councils. The park also straddles the boundary between the Nambucca and Kempsey local government areas, and is in the North Coast Local Land Services region.

Surrounding land uses include forestry (in the remaining part of Way Way State Forest), horticulture, grazing, rural residential development and Crown lands in the Middle Head area.

In the 2019–20 bushfires, substantial areas of parks in this region were burnt. The fires did not impact Yarriabini National Park, increasing the significance of the park for protection of plant and animal species and habitat.

2. Management context

2.1 Legislative and policy framework

The management of national parks in New South Wales is in the context of the legislative and policy framework of the National Parks and Wildlife Service (NPWS); primarily the National Parks and Wildlife Act and Regulation, *Biodiversity Conservation Act 1995* and NPWS policies.

Other legislation, international agreements and charters may also apply to management of the area. In particular, the *Environmental Planning and Assessment Act 1979* may require assessment and mitigation of the environmental impacts of works proposed in this plan. The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* also applies in relation to actions that may impact matters of national environmental significance, such as migratory species and threatened species and communities listed under that Act. The NSW *Heritage Act 1977* may apply to the excavation of known archaeological sites or sites with the potential to contain historical archaeological relics.

A plan of management is a statutory document under the National Parks and Wildlife Act. Once the Minister has adopted the plan, no operations may be undertaken within Yarriabini National Park except in accordance with this plan. This plan will also apply to any future additions to the park. Should management strategies or works be proposed for Yarriabini National Park or any additions to the park that are not consistent with this plan, an amendment to this plan or a new plan will be prepared and exhibited for public comment.

2.2 Management purposes and principles

National parks are reserved under the National Parks and Wildlife 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, inspiration and sustainable visitor or tourist use and enjoyment.

Under section 30E of 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 or tourist use and enjoyment that is compatible with conservation of natural and cultural values
- provide for sustainable use (including adaptive re-use) of any buildings or structures or modified natural areas having regard to conservation of natural and cultural values
- provide for appropriate research and monitoring.

The primary purpose of national parks is to conserve nature and cultural heritage. Opportunities are provided for appropriate visitor use in a manner that does not damage conservation values.

Part 11 lands (i.e. unreserved lands) are lands vested in the Minister and include land that is intended to be reserved (e.g. most lands that eventually become park go through a transition of being Part 11 land); and land that is unlikely to ever be reserved (e.g. severely modified areas, quarries, telecommunication towers, some access roads). Part 11 lands are

managed in accordance with the objectives of the National Parks and Wildlife Act, including to:

- conserve nature, including habitats, ecosystems, biodiversity, landforms, landscapes, wilderness and wild rivers
- conserve objects, places or features of cultural value
- foster public appreciation, understanding and enjoyment of natural and cultural heritage and conservation
- apply the principles of ecologically sustainable development.

2.3 Joint management of the park

A memorandum of understanding outlining the ongoing involvement of the Aboriginal community in the management of the park has been signed by NPWS and the Aboriginal Consultative Group. Priority issues and commitments in the memorandum include:

- developing a framework for exchanging information and knowledge according to agreed protocols
- identifying opportunities for employment or engagement of the three Aboriginal peoples (namely the Dunghutti, Ngambaa and Gumbaynggirr)
- facilitating the three peoples' access to the park for cultural, social and economic activities
- identifying opportunities for enhancement and promotion of Dunghutti, Ngambaa and Gumbaynggirr culture
- promoting educational (within communities and between parties), social, cultural (culture camps, gatherings, etc.) and economic opportunities for Aboriginal people
- consulting when developing any interpretive material, cultural awareness training or educational material related to the park
- using Dunghutti, Ngambaa and Gumbaynggirr languages where appropriate
- consulting regarding applications by commercial tour operators to undertake activities in the park.

2.4 Statement of significance

Features and values of significance for Yarriabini National Park include the following:

Cultural heritage values

Mount Yarrahapinni is associated with an Aboriginal cultural Dreaming story. It and other sites within the park are highly significant to the local Gumbaynggirr, Dunghutti and Ngambaa Aboriginal peoples.

Biological values

The park supports a complex mosaic of vegetation types, from heaths to wet forests and old-growth forest, which provide habitat for a range of native animals, including threatened species.

Geodiversity and landform

Mount Yarrahapinni (at 498 metres above sea level) is a major feature that dominates the local landscape and coastal plains.

Visitation, health and wellbeing values

The park is a popular local recreation location.

Economic and social values

The summit of Mount Yarrahapinni is a regionally significant site for telecommunications facilities. The park is also a popular destination for tourists and visitors staying in nearby towns and villages.

2.5 Specific management directions

In addition to the general principles for the management of national parks and Part 11 lands, the following specific management directions apply to the management of Yarriabini National Park:

- to recognise the rights and responsibilities of the local Aboriginal communities in relation to the park, and to manage it in collaboration with the local Aboriginal communities in accordance with the signed memorandum of understanding (see Section 2.3)
- to promote and manage the park as the prime focus for national park visitation in the Nambucca Valley, and to enhance the park's existing amenity for visitors
- to regulate and limit the impacts of the telecommunication facilities on park values, while ensuring that vital services continue
- to improve our understanding of the park's natural and cultural heritage values.

3. Values

The location, landforms and plant and animal communities of an area determine how it has been used and valued by people past and present. Both Aboriginal and non-Aboriginal people place values on natural areas, including aesthetic, social, spiritual and recreational values. These 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. To make the document clear and easy to use, various aspects of natural heritage, cultural heritage, threats and ongoing use are dealt with individually, but their interrelationships are recognised.

3.1 Geology, landforms and hydrology

The park lies on the Macleay Hills, a coastal range which forms part of the boundary between the Macleay and Nambucca catchments. The easternmost point of the park encompasses the coastal headland complex at Middle Head. Dominant features of this range of coastal hills include the peaks of Mount Yarrahapinni (elevation 498 metres above sea level), Cooks Knob and Scotts Mountain (270 metres above sea level). The Macleay Hills retain significant scenic value for surrounding areas. It is important to prevent further degradation of these values.

Underlying the park are predominantly sedimentary rocks from the late Carboniferous period and early Permian period (280–230 million years ago), known as the Kempsey and Pee Dee Beds, and comprising interbedded lithic sandstone, mudstone, pebbly sandstone and minor conglomerate (Eddie 2000). Two granitic igneous intrusions of Yarrahapinni Monzogranite which date from the Triassic period (250–200 million years ago) occur within the park: one centred on Mount Yarrahapinni, another centred on Scotts Mountain. These intrusions are surrounded by metamorphic rocks such as hornfels.

Yarriabini National Park protects a strongly dissected landscape of steep escarpments and slopes. Slopes in excess of 20 degrees are widespread in the park.

The soils are strongly associated with the underlying geology and resulting topography (see Appendix A). On older sedimentary rocks, thin stony loams and sandy loams occur on slopes grading to deeper soils on lower slopes and valleys. Loamy sands near granite outcrops merge to deeper loams down slope. Soils in much of the park are characterised by high erosion hazard. However, some areas have an extreme erosion hazard and/or are at risk of mass movement. This has implications for the ongoing maintenance and management of the road and trail network in the park. The park road and management trail network is prone to erosion and restrictions on use may need to be put in place during periods of wet weather. In particular, there are highly erodible sections on Tower Road, Jimmys Ridge Road, Grassy Head Trail, Way Way Creek Road, Leonards Road, and a number of old snig tracks. There is a need for ongoing monitoring of the creek crossings in the park and erosion control measures to be carried out as required, including regular maintenance and gravelling of road surfaces. Further upgrades may be required. Accelerated soil erosion may also occur due to disturbances, including inappropriate visitor activities and fire events.

Much of the park drains to the north and north-west via Way Way Creek into Warrell Creek, which joins the Nambucca River near Nambucca Heads. South of the Macleay Hills the park drains into the Macleay River. The extreme east of the park drains into the Macleay Arm and isolated coastal creeks.

To protect the water quality in Way Way Creek and reduce a major source of sedimentation in the creek, concrete splash crossings with approach aprons and drains were installed in 2008 on seven creek crossings on Way Way Creek Road and Jimmys Ridge Road in Part

11 lands and in neighbouring state forest. There are two bridges in the park which have recently been replaced/repaired.

Desired outcomes

- Scenic amenity of the reserved area of the park is maintained.
- Soil erosion is minimised.
- Water quality and health of streams in and downstream of the park are improved.

Management response

- 3.1.1 Consider scenic amenity of the park's landscape in all proposed developments in the park.
- 3.1.2 Undertake all works and activities in a manner that minimises erosion and sedimentation/pollution of creeks and other waterbodies.

3.2 Biodiversity

Native plants

The park contains a diversity of plant communities as a result of its landforms and geographic location. Detailed vegetation mapping has been undertaken to assist with fire management in the park (Eco Logical Australia 2007).

The most significant current threats to vegetation structure and health are inappropriate fire regimes, weeds, inappropriate use of trails, and use of vehicles off the designated road and trail network (see Section 4).

The coastal headland complex on Middle Head includes elements of Littoral Rainforest and grassland dominated by kangaroo grass (*Themeda triandra*), both of which are threatened ecological communities (see Table 1). Headland Trail, running east–west across Middle Head, provides access to the powerline (see Section 5.2) and to the eastern side of the headland. There is a need to reduce vehicular traffic in this area to protect the endangered kangaroo grassland (see Sections 3.4 and 5.2).

Another threatened ecological community in the park is Lowland Rainforest. The southernmost known natural population of blue fig (*Elaeocarpus grandis*) grows in subtropical rainforest along Way Way Creek. Although limited in extent (see Table 1), the threatened ecological communities present in the park are a priority for management.

Table 1 Threatened ecological communities known to occur in the park

Ecological community (short title)	Status ¹		Area (ha)
	BC Act	EPBC Act	
Littoral Rainforest ²	EEC	CEEC	0.4
Lowland Rainforest ³	EEC	CEEC	271.6
<i>Themeda</i> Grassland on Seacliffs and Coastal Headlands	EEC		~0.6

1 BC Act = Biodiversity Conservation Act; EPBC Act = Environment Protection and Biodiversity Conservation Act; EEC = endangered ecological community; CEEC = critically endangered ecological community.

- 2 Equivalent community under the Environment Protection and Biodiversity Conservation Act is Littoral Rainforest and Coastal Vine Thickets of Eastern Australia.
- 3 Equivalent community under the Environment Protection and Biodiversity Conservation Act is Lowland Rainforest of Subtropical Australia.

Tall open forest and subtropical rainforest occupy valleys and protected slopes, and low open forest occurs on ridgelines. Remnant old-growth forest can be found on the steeper slopes around Scotts Mountain and Mount Yarrahapinni. Another significant feature of Scotts Mountain is dry open forest with a mid-stratum of the vulnerable Grove's paperbark (*Melaleuca groveana*). This population of Grove's paperbark in the park is disjunct from its other populations.

A list of threatened and significant plant species recorded in the park or its immediate vicinity is given in Table 2.

Table 2 Significant plants recorded in or near the park

Common name	Scientific name	Status ¹	
		BC Act	EPBC Act
Austral toadflax ²	<i>Thesium australe</i>	Vulnerable	Vulnerable
Grove's paperbark	<i>Melaleuca groveana</i>	Vulnerable	
Milky silkpod	<i>Parsonsia dorrigoensis</i>	Vulnerable	Endangered
Slender marsdenia	<i>Marsdenia longiloba</i>	Endangered	Vulnerable
Other significant ³			
Large-flowered milk vine	<i>Marsdenia liisae</i>	Rare	
Nambucca ironbark	<i>Eucalyptus ancophila</i>	Poorly known	
	<i>Plectranthus cremnus</i>	Poorly known	

1 BC Act = Biodiversity Conservation Act; EPBC Act = Environment Protection and Biodiversity Conservation Act.

2 Species found on Grassy Head to the south of the park. Suitable habitat exists on Middle Head, although the species has not yet been recorded in the park.

3 Species conservation status from Briggs and Leigh (1996).

The park supports a range of orchids that are protected species under the National Parks and Wildlife Act. Some of these may be at risk of illegal collection.

A number of native plant species associated with research plots in the former state forest, and which are not naturally found in the Nambucca or Macleay valleys, occur in the park. There are a number of small plots, mostly around The Pines Picnic Area, including a hoop pine (*Araucaria cunninghamii*) plot that was planted at various times between 1936 and the mid-1950s, as well as small numbers of white beech (*Gmelina leichhardtii*), red cedar (*Toona ciliata*) and Mexican cedar (*Cupressus lusitanica*). There are also areas of blackbutt (*Eucalyptus pilularis*) plantations in the park that were established 50–60 years ago.

There are also landscape plantings of hoop pines from the same era which have cultural values, including pines planted along Way Way Creek Road on the approaches to the picnic area (see Section 3.3). Some of the hoop pines in and adjacent to the picnic area are impacting visitor amenity (see Section 3.4), and wildlings are sprouting in the vicinity of adult trees. There is also a large flooded gum (*Eucalyptus grandis*) plantation immediately to the south of The Pines Picnic Area, which was planted in 1941 and 1942. This area is being colonised by a diverse rainforest understorey.

Native animals

The complex mosaic of vegetation types and remnants of old-growth forest in the park provide a diversity of habitats for native animals. This and the inherent productivity of coastal forests means that a high diversity of native animals is found in the park. Systematic native animal surveys in the area have been conducted over a number of years since the early 1990s, initially as part of an environmental impact statement for forestry operations.

The park is a highly significant refuge area. It is linked via existing vegetated and fragmented corridors to the Macleay estuary and coastal lowlands, and via the forests of Ngambaa Nature Reserve, Tamban State Forest and other public and private lands to New England National Park and other parks along the Great Escarpment. These corridors are vital to the long-term conservation of local resident, nomadic and migratory native animals (Scotts 2003), and also explain the presence of elements of several native animal assemblages, namely coastal fauna, moist forest fauna, rainforest fauna and dry forest fauna.

A number of animal species recorded in or near the park are threatened (see Table 3). Several of these, including the owls and bats, depend on the presence of hollows in old-growth trees for roosting habitat. Past land use has impacted the structure of forests in the park. Old growth structural elements (such as hollows and large standing dead trees), which are important habitat resources for native animals are rare in many parts of the park.

Table 3 Threatened animals recorded in or near the park

Common name	Scientific name	Status ¹	
		BC Act	EPBC Act
Frogs			
Stuttering frog ²	<i>Mixophyes balbus</i>	Endangered	Vulnerable
Birds			
Barred cuckoo-shrike	<i>Coracina lineata</i>	Vulnerable	
Brown treecreeper (eastern subspecies) ²	<i>Climacteris picumnus victoriae</i>	Vulnerable	
Eastern osprey ²	<i>Pandion cristatus</i>	Vulnerable	
Glossy black-cockatoo	<i>Calyptorhynchus lathami</i>	Vulnerable	
Little eagle ²	<i>Hieraaetus morphnoides</i>	Vulnerable	
Little lorikeet ²	<i>Glossopsitta pusilla</i>	Vulnerable	
Masked owl	<i>Tyto novaehollandiae</i>	Vulnerable	
Pale-vented bush-hen ²	<i>Amaurornis moluccana</i>	Vulnerable	
Powerful owl	<i>Ninox strenua</i>	Vulnerable	
Sooty owl	<i>Tyto tenebricosa</i>	Vulnerable	
Wompoo fruit-dove	<i>Ptilinopus magnificus</i>	Vulnerable	
Mammals			
Eastern bentwing-bat	<i>Miniopterus schreibersii oceanensis</i>	Vulnerable	
Eastern freetail-bat ²	<i>Mormopterus norfolkensis</i>	Vulnerable	
Golden-tipped bat ²	<i>Kerivoula papuensis</i>	Vulnerable	
Greater glider	<i>Petauroides volans</i>	Vulnerable	Vulnerable

Common name	Scientific name	Status ¹	
Greater broad-nosed bat ²	<i>Scoteanax rueppellii</i>	Vulnerable	
Grey-headed flying-fox ²	<i>Pteropus poliocephalus</i>	Vulnerable	Vulnerable
Koala	<i>Phascolarctos cinereus</i>	Vulnerable	Vulnerable
Little bentwing-bat ²	<i>Miniopterus australis</i>	Vulnerable	
Spotted-tailed quoll ²	<i>Dasyurus maculatus</i>	Vulnerable	Endangered
Squirrel glider ²	<i>Petaurus norfolcensis</i>	Vulnerable	
Yellow-bellied glider	<i>Petaurus australis</i>	Vulnerable	
Yellow-bellied sheath-tail-bat ²	<i>Saccolaimus flaviventris</i>	Vulnerable	

1 BC Act = Biodiversity Conservation Act; EPBC Act = Environment Protection and Biodiversity Conservation Act.

2 Species recorded on neighbouring lands and expected to occur in the park.

There are anecdotal reports of the distinctive, threatened brush-tailed phascogale (*Phascogale tapoatafa*) being seen in the park. Other threatened species that may occur in the park include giant barred frog (*Mixophyes iteratus*), square tailed kite (*Lophoictinia isura*), eastern pygmy-possum (*Cercartetus nanus*) and long nosed potoroo (*Potorous tridactylus*). These records have not been verified. There are records of the vulnerable white-bellied sea-eagle (*Haliaeetus leucogaster*) near the park. There have been no recent confirmed sightings of yellow-bellied gliders in the park. There is a need to target this species (as well as koalas – see below) in any future native animal surveys undertaken in the park.

Areas which were cleared in the past require revegetation (e.g. the former banana farm on Kinki Ridge and the area below the telecommunication towers). There are opportunities to supplement natural regeneration through planting, weed control and community involvement.

Strategies for the recovery of threatened species, populations and ecological communities have been set out in a statewide *Biodiversity Conservation Program* (OEH 2017). These actions are currently prioritised and implemented through the *Saving our Species* program which aims to maximise the number of threatened species that can be secured in the wild in New South Wales for 100 years (OEH 2013b). Individual recovery plans for species listed under the Commonwealth Environment Protection and Conservation Act may also be prepared for threatened species to consider management needs in more detail. Numerous recovery plans for NSW threatened species have been prepared and provide information on species' requirements, life cycle needs and habitat requirements, including plans for the koala, large forest owls (including the sooty, masked and powerful owls) and yellow-bellied glider.

Koala

The koala is regarded as a totemic animal species for the park, lending its name both to the park and to Mount Yarrahapinni (see Section 3.3). Both the names *Yarriabini* and *Yarrahapinni* mean 'koala rolling down mountain' in the local Dughutti and Ngambaa languages. Nearby Dunggir National Park is within the area of the Gumbaynggirr Aboriginal People and the name of that park is derived from the local Gumbaynggirr dialect and means 'koala'.

There have been no records of koalas in Yarriabini National Park or in neighbouring state forests since 1991. The decline in the population of koalas in the park may be part of a decline in the broader Scotts Head – Ngambaa – Willawarrin koala population identified by Scotts (2013). This population is predominantly on private property (66%) with smaller areas

on state forest (21%) and national park estate (14%). The status of this koala population has not been established, and the quality of reserved habitat remains largely unknown (Scotts 2013). Scotts recommends targeted survey, monitoring and research to better understand the character and habitat of the Scotts Head – Ngambaa – Willawarrin population.

Corridors linking the park with other suitable forested habitat exist on lands surrounding the park, including private property and state forests. These off-park corridors are important for long-term conservation of biodiversity in the area, including koalas.

Desired outcomes

- Native plant and animal species and communities are conserved.
- Structural diversity and habitat values are restored in areas subject to past disturbance.

Management response

- 3.2.1 Encourage or undertake a systematic survey for Grove's paperbark to determine its full distribution within the park.
- 3.2.2 Encourage or undertake surveys for other known or predicted threatened species and protected species to inform management practices.
- 3.2.3 Implement relevant strategies in the *Biodiversity Conservation Program* and recovery plans for threatened species, populations and ecological communities.
- 3.2.4 Liaise with neighbours to encourage the retention and appropriate management of key habitats and corridors adjacent to the park.
- 3.2.5 Remove hoop pine wildlings within the park to prevent them spreading.
- 3.2.6 Manage the flooded gum plantation to encourage regeneration of the rainforest understorey.
- 3.2.7 Undertake proposed works on Middle Head to address impacts on the endangered *Themeda* (kangaroo grass) grasslands.
- 3.2.8 Encourage targeted surveys of koalas in the park and research into the reasons for the decline of the koala in the area and the suitability of remaining habitat within the park. If future targeted surveys for the koala fail to identify populations of the species in the park, consider and assess the implications of using the park for relocating injured or orphaned koalas that cannot be released into the wild at their original site.

3.3 Shared heritage

Aboriginal communities have an association and connection to the land. The land and water 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, kinship systems and strengthening social bonds. Aboriginal heritage and connection to nature are inseparable from each other and need to be managed in an integrated manner across the landscape.

Mount Yarrahapinni, Scotts Mountain and Middle Head have long been recognised as areas of traditional and contemporary significance to local Aboriginal peoples (Morwood & Collins 1991). These areas are in the traditional lands of the Ngambaa People, but are also highly significant to the Gumbaynggirr and Dunghutti peoples. The entire mountain surrounding Mount Yarrahapinni (including areas in adjoining state forest) is a registered Aboriginal site. Numerous other sites (mostly isolated artefacts) have also been recorded in the park. A

number of significant sites occur in close proximity to park roads and trails, so some trails will be closed to the public to restrict access and reduce impacts (see Sections 3.4 and 5.1).

The name *Yarriabini* comes from the local Dunghutti and Ngambaa languages and means 'koala rolling down mountain'. Mount Yarrahapinni is connected to an Aboriginal cultural Dreaming story which is represented in the mosaic statue in The Pines Picnic Area. Middle Head also features in Dreamtime stories of both the Gumbaynggirr and Dunghutti Aboriginal peoples.

The first Europeans to enter the park were those accompanying botanist and explorer, Clement Hodgkinson, on his voyage up the east coast in the 1840s (Hodgkinson 1845). The publication of his description of the rainforests and the cedar found in the area was followed soon after by cedar-getters. Timber harvesting quickly became the predominant land use of the park, and would remain so for more than a century. Yarrahapinni State Forest was dedicated in 1913 and Way Way State Forest in 1917.

There is a long social history related to logging. Physical remains of this history include stumps, some with board slots, and former access and snigging trails. Lettered trees, because they are becoming scarce, were recommended for preservation by Pearson (1994) but this is not feasible due to the extent of termite attack. Two small, mortared stone cairns were erected in the park as memorials to three members of the Parker family, a family from Eungai with connections to the local timber industry. A small cairn of stones, which was originally topped with a bust of Jesus Christ, was erected on a bank adjacent to Tower Road by a missionary priest in the late 1970s (Pearson 1994).

Two small timber and corrugated iron huts at the junction of Rosewood Road and Clayholes Road were constructed in the 1940s and used by logging and roading crews. They have recently been removed because vandals had caused major damage and they posed a public safety risk. Pearson (1994) noted that an area of 1–2 hectares to the south of the huts (now within the park) had been used to grow tomatoes during the Depression when the road was being constructed. This site has since reforested, with only the occasional fence post and sections of plain wire indicating this previous land use.

Some grazing also occurred in the northern part of the park. A set of wooden cattle yards and a ramp were built during the 1960s, about 100 metres north of Leonards Road on an area that had been used as a bullock holding area (Pearson 1994). This structure is located within Way Way State Forest.

During the 1950s and 1960s there was a marked increase in the number of tourists visiting the surrounding area. This prompted the provision of walking tracks and other facilities in state forests (Pearson 1994). The Pines Picnic Area, which had been originally established in the 1930s, was expanded and upgraded at this time. Non-endemic hoop pines were planted in the picnic area and along Way Way Creek Road on the approaches to the picnic area. These pines have cultural heritage values and, as such, the majority of them will be retained.

The long-established road and trail network within the park has some historic value, and includes some bridge structures on disused and overgrown sections of trail. These bridges may have some heritage significance.

There is also some history of mineral exploration in the park, primarily for molybdenite, silver and copper (Suppel & Hobbs 1977), and it is believed there may be some abandoned diggings and shallow mineshafts associated with this exploration in the park. The location of abandoned mineshafts needs to be confirmed and any hazards to public safety removed or controlled.

The beach north of Middle Head was opened for mineral sands mining in the late 1970s, and became a focus for the industry following the cessation of sandmining in all national parks. In 1980, local Aboriginals established a Land Rights embassy in the forest near Middle Head

Beach on the boundary of what is now the park. Along with local conservationists, they participated in a blockade in late 1980. While unsuccessful in saving Middle Head Beach, these actions prevented mining taking place on neighbouring Grassy Head Beach and led to a decision by the NSW Government not to issue any new leases for sandmining on the NSW coastline (Cohen 1996). The sandmining activity impacted a small area now within the park.

In the early 1990s, residents of the surrounding area embarked on another campaign of blockades and legal action, this time to prevent further intensive logging taking place in the forests without the completion of an environmental impact statement. The Unkya Local Aboriginal Land Council, representing the local Aboriginal community, initiated legal action in the Land and Environment Court to protect sites of significance in the forests. This court case resulted in rigorous archaeological and anthropological surveys in the area, and the prohibition of logging in areas of importance on Scotts Mountain and Mount Yarrahapinni.

Conservationists' interests in the area were revived in the late 1990s when a nature reserve proposal was endorsed by the Three Valleys Branch of the National Parks Association of NSW, the Way Way Forest Action Group, the Towards 2000 Conservation Group and concerned local residents.

The Aboriginal community has maintained an interest in the area since the park's creation in 2003. NPWS has liaised with Aboriginal communities in the management of cultural heritage in the park as well as developments such as the design of the upgrade to The Pines Picnic Area, design of the lookout east of Mount Yarrahapinni, interpretive displays in the Nambucca Valley and significant early progress in regenerating Middle Head (Nyambaga Green Team 2007). To facilitate ongoing consultation, the Aboriginal Consultative Group has been established for the park and is open to members of the Dunghutti, Ngambaa and Gumbaynggirr Aboriginal peoples. The consultative group represents and seeks the views of their local Aboriginal communities on matters related to the park.

A memorandum of understanding outlining the ongoing involvement of the Aboriginal community in the management of the park has been signed by NPWS and the Aboriginal Consultative Group (see Section 2.3). The memorandum includes a commitment to promote social and cultural opportunities for Aboriginal people, including culture camps, and the Aboriginal Consultative Group has indicated a desire to hold culture camps in the park. To accommodate this, a basic campsite will be established (see Section 3.4).

Desired outcomes

- Aboriginal and historic features and values are identified and protected.
- Aboriginal people are involved in management of the Aboriginal cultural values in the park.
- Understanding of the cultural values of the park is improved.

Management response

- 3.3.1 Implement the memorandum of understanding with the Aboriginal Consultative Group. In accordance with the memorandum, actively pursue the advice of the group in the management of the park, particularly matters related to Aboriginal heritage and projects to protect cultural values.
- 3.3.2 In accordance with the memorandum of understanding, facilitate access by Aboriginal community members to areas of the park.
- 3.3.3 Encourage further research into the Aboriginal heritage values of the park in consultation with the Aboriginal Consultative Group, local Aboriginal land councils and Elders groups.

- 3.3.4 Work with the Aboriginal Consultative Group to identify Aboriginal names for key sites, places and culturally significant features within the park, and use these names when interpreting the park to visitors. Where appropriate, work with the Geographical Names Board to have these names formally adopted.
- 3.3.5 Retain the heritage hoop pines along Way Way Creek Road and the majority of the pines at The Pines Picnic Area, subject to regular tree safety checks.
- 3.3.6 Retain the Parker family memorial cairns. Further memorials will only be permitted in accordance with NPWS policy, and only through formal sponsorship arrangements for the installation of visitor infrastructure in accordance with this plan. Unauthorised memorials will be removed.
- 3.3.7 Record other historic features present in the park, including the lettered trees, and allow these to decay with time.
- 3.3.8 Encourage research into the history of the park.
- 3.3.9 In liaison with the relevant regulatory authority, assess safety requirements and the heritage significance of abandoned mines once located. Where appropriate, undertake measures to protect public safety and the historical values of the mines. This may include fencing or signage.

3.4 Visitor use and interpretation

NPWS parks provide a range of opportunities for recreation and tourism, including opportunities for relaxation and renewal as well as appropriate active pursuits. Visitor opportunities provided in the natural and undeveloped settings afforded by the park system are mostly those at the low-key end of the spectrum. NPWS aims to ensure that visitors enjoy, experience and appreciate parks, while at the same time conserving and protecting park values.

Visitation to the park needs to be carefully managed as visitors can negatively impact natural and cultural values. The nature and severity of potential visitor impacts depend on the type, frequency and interaction of activities, visitor numbers and behaviour, site capacity and durability, and the sensitivity of the site's natural and cultural values.

Yarriabini National Park, located in the North Coast NSW Tourism Region, has a long history of recreational use and its value as a recreational area for the region is well recognised. The park provides opportunities for visitation in a natural coastal and hinterland setting, including rainforest gullies and lookouts providing views over estuaries and the coast. Being located between two major Mid North Coast towns (namely Macksville and Kempsey), the potential visitor demand from the local population is medium. This demand is likely to grow and to be concentrated in the older demographics.

Approximately 10,000 people visit the park each year. Most visitor activity in the park is concentrated at The Pines Picnic Area and the lookouts on Mount Yarrahapinni. Signs on Giinagay Way (the old Pacific Highway) at Warrell Creek promote these sites. Generally, visitation is within the capacity of the visitor sites. Peak visitation occurs in holiday periods, primarily in the warmer months, when The Pines Picnic Area offers a cool, shady refuge from the heat and sun.

Vehicular access

There are four types of roads and trails that provide access to the park:

- Public roads – roads leading to the park that are managed by other local and state government agencies.

- Park roads – public two-wheel drive or four-wheel drive roads managed by NPWS which provide vehicular access to various visitor facilities as well as access for park management purposes and other authorised uses.
- Management trails – two-wheel drive or four-wheel drive trails that are not available for public use. Management trails are primarily for park management purposes, but may be used for other authorised purposes (e.g. maintenance of telecommunication towers and powerlines, emergency access, activities covered by a consent, and for specified recreational activities such as bushwalking and cycling).
- Neighbour access trails – maintained primarily for neighbours to access their properties (see Section 5.2).

Visitor access to the park is primarily along Way Way Creek Road or Rosewood Road, which are part public road and part park road. Yarriabini Lookout is currently accessed via Tower Road, a short detour off the main access route.

In the past, all roads and trails in the park were classified as park roads (either two-wheel drive or four-wheel drive); the only exception being the management trail near The Pines Picnic Area. However, there are a number of issues with ongoing public vehicular access to these roads:

- soil erosion, including some areas which have an extreme erosion hazard and/or are at risk of mass movement (see Section 3.1)
- impacts on biodiversity, particularly threatened ecological communities on Middle Head (see Section 3.2)
- impacts on cultural heritage sites and significant landscape features in the park (see Section 3.3)
- public safety concerns regarding use of park roads including:
 - conflict between walkers and vehicles, particularly along the Summit to Sea walking route
 - narrow, steep and at times impassable roads (particularly around Mount Yarrahapinni)
 - slippery and dangerous driving conditions in the park (particularly along Scotts Mountain Trail)
- inappropriate use of roads by some recreational four-wheel drivers (e.g. after wet weather)
- ongoing maintenance costs and operations (e.g. providing assistance to recreational drivers who become bogged).

Park roads that will remain open include Way Way Creek Road, Jimmys Ridge Road, Grassy Head Trail, Kinki Spur North Road and Tower Road. These roads provide access to key visitor areas as well as access through the park (see Figure 1 roads labelled 'Park road - Unsealed'). All other park roads have been reclassified as management trails to address the concerns outlined above. Signs may be installed to identify that these trails are closed to the public and, where required, gates will be installed to restrict access (see Section 5.1).

Access to the telecommunications precinct on the summit of Mount Yarrahapinni is via Tower Road west of Yarriabini Lookout, Ptc Road, or Strange Tree Road (see Figure 1). The tower precinct presents safety issues because sections of security fencing around the towers are old and rusted, and there is barbed wire within reach of visitors. The site is no longer managed as a lookout and the area is prone to vandalism, is unsightly and not considered suitable for promotion to the public. As such, public vehicular access to the telecommunications precinct on the summit will be restricted by installing locked gates as shown on Figure 1. Vehicular access to the tower precinct will still be provided for park management and other authorised purposes relating to the towers (see Section 5.2). The

new Summit Track from Yarriabini Lookout will provide park visitors with a walking track to the summit. Based on community interest and support, NPWS will hold 'open days' on the summit of Mount Yarrahapinni to provide opportunities for people to drive to the site.

Headland Trail on Middle Head has been used by visitors to reach a viewing point on the north east side of the headland and by Essential Energy to access the powerline (see Section 5.2). Headland Trail traverses and fragments a small area of *Themeda* Grassland Endangered Ecological Community and people also drive off-track in this area. Use of the trail, turn-around areas and off-track driving has resulted in destruction of a large proportion of the grassland remnant and continuing use is hindering efforts to regenerate this endangered community. Previously a fence was erected on the headland to restrict access and reduce impacts on the grassland community, but this was destroyed.

To address the loss and degradation of the endangered community and to improve the success of regeneration efforts by removing a major disturbance, a locked gate will be installed on Headland Trail near its intersection with Grassy Head Road. A management trail will provide authorised access from Grassy Head Road to the powerline (see Section 5.2). From this point, the existing management trail and unauthorised turn-around areas will be rehabilitated and, due to the Aboriginal cultural heritage significance of the headland, walking out to the north-east side of the headland will not be promoted.

Access to Middle Beach is via a carpark located on the northern boundary of the park on Middle Head, and then along an associated walking track (see Figure 1). Both the carpark and the track are owned and managed by Kempsey Shire Council. Currently, the carpark is poorly delineated and this has resulted in people parking their cars in the park in the quest for shade. This is impacting native vegetation along the park boundary, and the installation of barriers (e.g. bollards) is needed to reduce these impacts and clearly delineate the carpark. There is an opportunity to work with Kempsey Shire Council to improve the amenity of the site and the control of vehicles. Such work would not encourage use of Middle Beach for swimming, as it is not patrolled and is not considered a safe swimming beach (Short 1993).

Access to Grassy Beach, to the south of Middle Head, is via a carpark and associated walking track which are also owned and managed by Kempsey Shire Council (see Figure 1). The proposed realignment of Kangaroo Grass Track would result in the track-head being across the road from this carpark.

Recreational activities

The predominant recreational activities undertaken in the park include car touring, bushwalking, motorbike riding and mountain biking.

Bushwalking allows visitors to be in close contact with the environment and can increase their understanding and enjoyment of parks and the environment generally. At the moment, other than walking along park roads and management trails, the park provides only two bushwalking opportunities. These are the short Discovery Trail through rainforest adjoining The Pines Picnic Area, and the Kangaroo Grass Track which runs from Middle Head Trail to Grassy Head Road.

One of the park's specific management directions (see Section 2.5) is to promote and manage the park as the prime focus for park visitation in the Nambucca Valley, and to enhance visitor amenity. Consistent with this, a number of new short walking tracks are proposed. The current alignment of Kangaroo Grass Track will be altered so the track meets Grassy Head Road further to the south. This realignment will address protection of significant Aboriginal cultural heritage values associated with Middle Head.

Existing and proposed walking opportunities in the park are detailed in Table 4 and shown on Figure 1. They range from Grade 2 to Grade 4 tracks. The walking track grades identify a track's suitability for different user groups as follows:

- Grade 2 – walkers with young children (generally formed tracks)
- Grade 3 – beginner walkers (generally formed tracks with some steep sections)
- Grade 4 – experienced walkers (generally rough tracks).

A small proportion of visitors who are experienced and equipped for self-reliant bushwalking also utilise the remoter areas of the park. A long-distance, marked route is proposed to complement this use. Called 'Summit to Sea', this walking route follows management trails and existing and proposed walking/cycling tracks, and only short sections of park road need to be traversed.

Horse riding currently occurs at very low levels in the park, for example, a limited number of park neighbours ride along trails in the Kinki Ridge area. Riders probably hold legitimate concerns about riding on the busy park roads, particularly Tower Road which is steep and along which cars travel at higher speed.

Horse riding is a popular recreational activity that has cultural associations for many Australians. The NPWS *Strategic Directions for Horse Riding in NSW National Parks* (OEH 2012b) provides a framework to improve riding opportunities in eight priority regions in New South Wales. The North Coast Region, where the park is located, is not one of the priority regions.

Table 4 Bushwalking in the park

Walking track name	Location (setting)	Distance	Current standard ¹	Proposed standard ¹
Discovery Trail	The Pines Picnic Area (along rainforest creek)	~300 m loop	Grade 3	Grade 2
Kangaroo Grass Track	From Middle Head Trail to the southern side of Middle Head (coastal forest)	800 m one way	Grade 3	Grade 3
			Proposed new track	Grade 3
Link Track	Between Allis Track & Smilax Trail (open forest / rainforest)	1.5 km one way	Proposed new track	Grade 4
Heath Loop Track	Midway along Tower Rd on western side (heathland)	0.5 km loop	Proposed new track	Grade 3
Summit Track	Linking informal lookout on Donohoes Road to the summit of Mt Yarrahapinni via Yarriabini Lookout (open forest with occasional views)	1.4 km one way	Proposed new track	Grade 3
Summit to Sea long-distance walking route	From Mount Yarrahapinni to Middle Head (open forest)	12 km one way	Includes existing roads, trails and tracks and proposed tracks	Various (see Figure 1)

1 The Australian Walking Track Grading System has been used as the basis for this track classification system. For further information on these grades and their relationship to the Australian Standard on walking tracks, please refer to the Users Guide to the Australian Walking Track Grading System (DSE no date).

Members of the Aboriginal Consultative Group strongly oppose horse riding occurring in the park due to the possible introduction of weeds, road safety, damage to medicine plants, and potential damage to cultural sites (many of which occur on or adjacent to roads and trails). In addition, much of the landscape in the park is very steep and comprises soil types that are highly prone to erosion (Appendix A).

As such, horse riding is generally not considered appropriate in the park. However, NPWS will consider granting consent for riding proposals (e.g. local horse riding clubs and park neighbours) in certain areas of the park under strict conditions relating to route, seasonality and numbers of riders.

Cycling occurs at low levels in the park and cyclists are allowed to use the management trail network. Cycling, including mountain bike riding, is a rapidly growing recreational activity in New South Wales. The NPWS *Sustainable Mountain Biking Strategy* (OEH 2011c) will guide the provision of high quality mountain biking experiences that riders of all levels can enjoy. Stringent safety and environmental standards will be met, and opportunities will be developed in partnership with relevant stakeholders (e.g. cycling clubs, individuals and local councils). Apart from beginner riders, most mountain bike riders seek out 'single-tracks' (i.e. narrow tracks that are only wide enough to accommodate riders in single file).

Mountain bike riders currently use two designated single-use cycling tracks in the park (see Figure 1). A mountain bike track parallel to Tower Road was created for cyclists when the park was state forest. This track is still occasionally used by cyclists in preference to Tower Road which is narrow and steep in sections. The other track is in the Cooks Knob area and is an old snigging track.

Both tracks will be retained as single-use (cyclists only), one-way, single tracks for use during daylight hours. The Tower Road track includes a number of natural technical challenges (e.g. rocks and logs). No constructed, imported infrastructure (e.g. ramps and see saws) will be allowed on either track.

Sections of these tracks (within a 20-metre wide corridor) may be realigned, reconstructed or closed temporarily to reduce the potential for erosion and address other environmental and safety issues. Options to involve local mountain bike groups in voluntary maintenance of the tracks will be pursued if their use increases. The International Mountain Bicycling Association (IMBA) Rules of the Trail have been adopted by NPWS and will apply to this park.

Hang-gliding and paragliding from the lookout on Donohoes Road (to the east of Yarriabini Lookout) used to be undertaken in the past. However, the site has not been used or maintained by hang-gliders, nor is it promoted by the Hang Gliding Federation of Australia. As such, management of the area as a launch site is not warranted.

All **adventure activities** as defined in the National Parks and Wildlife Regulation (including hang-gliding and paragliding) will require NPWS consent.

Day use areas

The Pines Picnic Area is a popular place for locals to picnic and go on the Discovery Trail walk. The picnic area has been upgraded to meet NPWS standards for these facilities, and to address issues with erosion and public safety. Gas and wood-fired barbecues are provided and wood is currently supplied by NPWS for use by visitors.

The amenity of this picnic area is severely impacted, particularly in winter months, by the amount of shading created by the planted hoop pines, which have formed a thick forest and exclude sunlight from the picnic area. A small proportion of the pines will be removed over time on an as needs basis to gradually improve visitor amenity and address visitor safety. The shade cast by the hoop pines impacts grass growth and the amenity of lawn areas at the site. Additional paved paths may be required to improve visitor amenity and reduce

impacts on grassed areas. Some of the flooded gums in the plantation directly to the south of the picnic area also pose a safety risk to visitors (and visitors' cars) and require ongoing assessment and management.

Yarriabini Lookout (see Figure 1) has been upgraded to address safety issues. Located on the eastern approach to Mount Yarrahapinni, this lookout provides exceptional views over South West Rocks and the Macleay estuary, and views will be maintained by managing the regrowth of vegetation. Seating, picnic tables and toilet facilities are also provided at this location. If levels of use increase significantly, additional seating or tables may be provided at the site.

The lookout area at the telecommunication tower precinct on Mount Yarrahapinni has not been maintained as a formal lookout by NPWS for some time (i.e. vegetation has not been managed to maintain views). There are public safety issues regarding use of the precinct, and the public's use of the lookout on the summit is also hampered by steep terrain and the ongoing operation of the towers. Measured levels of radio frequency electromagnetic energy in the public access areas are well below current safety thresholds, but levels are high within the compounds and on the towers themselves (EMC Technologies 2003). Given the dominance of the towers and the potential conflict between high visitation levels and the site's continued operation for regional telecommunications (see Section 5.2), it is not suitable for promotion as a day use area.

An informal lookout on Donohoes Road, east of Yarriabini Lookout, was formerly used and maintained by people using hang-gliders. The site will be maintained as an informal lookout and will be a feature of the proposed Summit to Sea long distance walking route.

Camping areas

Formal camping areas do not currently exist in the park. Other authorities and private operators outside of the park provide accommodation, including camping (e.g. Yarrahapinni Adventist Youth and Ecology Centre) and caravan parks (e.g. Grassy Head, Scotts Head and Stuarts Point).

Some bush camping by individuals or small groups occurs in the park away from park roads, and larger licensed educational groups use defined bush camping sites in the eastern section of the park. There are currently no camping facilities provided at these sites.

A new basic camping area will be developed in the park in the general area shown on Figure 1. Development of the new camping area will require determination of the exact location for the camp; a suitability assessment of the site; and the preparation of a site plan to address planning, design and establishment works.

The exact location of the camping area will be determined in consultation with the Aboriginal Consultative Group. However, it will most likely be near the intersection of Tallowood Trail and Scotts Mountain Road. In this location, there is an island in the middle of the road where a former log dump was located. Regrowth vegetation in the island would need to be cleared to create the camping area, and tree safety work around the edge of the area would be needed to reduce tree fall risk. Some earth works may also be required depending on the final site selected. The flat site does not support any threatened species or ecological communities nor any known Aboriginal sites.

Only minimal facilities will be provided at the camping area. The suitability and feasibility of providing a toilet and fireplace in the camping area will be assessed as part of detailed site planning once the exact site is determined. The assessment will consider environmental impacts, construction and ongoing maintenance costs, and fire risk.

While the primary reason for the development of the camping area is to provide an appropriate venue for culture camps in the park, the area may be used by other park users at other times, for example by people undertaking the long distance Summit to Sea walk.

Individuals or groups of fewer than 15 people may walk into the camping area and camp without consent, provided the area is not being used by an authorised group.

Group and commercial activities

Group activities, including educational and cultural activities, facilitate a quality experience for participants, enhancing their understanding and appreciation of the park's natural, cultural and social heritage values. The park has been used for over 10 years by a non-profit, outdoor education organisation to take school groups into bush campsites in the park. This is a licensed activity. Culture camp groups visit the park on day trips, however, it is hoped that Aboriginal groups will use the new camping area that is being developed for culture camps.

Groups of more than 15 people wanting to camp anywhere in the park will require consent. This requirement will provide a de facto booking system for the camping area.

Limiting group sizes and imposing conditions on how certain activities are undertaken can help to mitigate potential impacts. The definition of what constitutes a 'large' group varies according to the activity. Those participating in activities which have the potential for higher impacts will require consent for smaller group sizes than those participating in activities which have lower impacts, in accordance with Table 5.

Table 5 Group size thresholds

Activity description	Group size requiring consent
Horse riding	All riders irrespective of group sizes
Cycling	Groups of more than 12 riders
Camping	Groups of more than 15 people
Other activities	Groups of more than 40 people

Large-scale organised activities, and competitive activities of any size require consent under the National Parks and Wildlife Regulation. All commercial visitor use activities require a licence under the National Parks and Wildlife Act (see Section 5 for other activities). There are no commercial activities in the park at present.

Interpretation of park values

Information provision assists the protection of natural and cultural heritage, promotes support for conservation, and increases the enjoyment and satisfaction of visitors.

There is a long history of school groups visiting the park for outdoor recreation, including some orienteering and bush camping. The park is also regularly used by schools on day trips to The Pines Picnic Area. NPWS intends to upgrade the interpretation signage along Discovery Trail at The Pines Picnic Area to create a self-guided interpreted walk. There is the potential to develop track-head signage for other walking tracks to promote the values of the park.

NPWS occasionally holds Discovery program tours in the park, including guided school excursions. These increasingly have a cultural heritage focus and involve Aboriginal guides where possible. Other major themes that can be interpreted include historic heritage, threatened species and rainforest ecology.

Desired outcomes

- A range of visitor experiences are available that complement opportunities available off-park.
- Visitors are aware of and appreciate the park's values.
- Group activities enhance visitors' understanding and appreciation of the natural and cultural heritage values of the park.

Management response

Vehicular access

- 3.4.1 Allow public vehicular access on the park roads shown on Figure 1.
- 3.4.2 Continue to work with Kempsey Shire Council to improve delineation of the Middle Beach carpark to address encroachment issues and improve the amenity of the area.

Recreational activities

- 3.4.3 Construct and/or maintain the bushwalking tracks shown on Figure 1 to the standards listed in Table 4 and install signage as required.
- 3.4.4 Establish a suitable carparking area on Tower Road for the Heath Track if demand requires.
- 3.4.5 Do not allow horse riding in general or camping with horses in the park. Issue consents as appropriate in accordance with this plan for horse rides within the park and ensure conditions limit potential impacts on park values.
- 3.4.6 Allow cycling on park roads, management trails and the two designated single-use cycling tracks shown on Figure 1. Roads, trails and cycling tracks may be closed to cycling where there are unacceptable environmental or cultural impacts, or risks to users. The alignment of the cycling tracks may be modified to limit erosion potential and address other environmental and safety issues. No constructed, imported infrastructure (e.g. ramps and seesaws) will be allowed. Signage will be installed as required.

Day use areas

- 3.4.7 Maintain The Pines Picnic Area and the Yarriabini Lookout as day use areas, with use permitted only in daylight hours unless as part of an authorised activity.
- 3.4.8 Manage the flooded gum plantation adjacent to The Pines Picnic Area to reduce tree fall risk.
- 3.4.9 Remove a small proportion of the hoop pines surrounding The Pines Picnic Area on an as needs basis to improve the amenity of the area and address visitor safety.
- 3.4.10 Control the regrowth of vegetation to maintain views at Yarriabini Lookout and the informal lookout on Donohoes Road.

Camping areas

- 3.4.11 Prepare and implement a site plan for the establishment of a basic camping area in the location indicated on Figure 1 in accordance with this plan.
- 3.4.12 Fires in the park may only be permitted with prior consent from NPWS, other than in designated fireplaces in The Pines Picnic Area and, if installed, the camping area.

- 3.4.13 Require groups of more than 15 people wanting to camp anywhere in the park to obtain prior written consent.
- 3.4.14 Allow bush camping at sites more than 300 metres from park roads or 300 metres from the camping area when it is being used by authorised groups. Campers will be encouraged to follow minimum impact bushwalking practices.

Group and commercial activities

- 3.4.15 Require all organised group activities involving more than the group size limits given in Table 5 to obtain prior written consent. Conditions may be included to minimise impacts on park values and other visitors.
- 3.4.16 Consult with the Aboriginal Consultative Group regarding applications by commercial tour operators to undertake activities in the park. All commercial activities on park require NPWS authorisation.

Interpretation of park values

- 3.4.17 Prepare and implement an interpretation plan for the park as part of a broader strategy for parks in the Nambucca Valley. Ensure that interpretation acknowledges and incorporates cultural stories and local Aboriginal language but protects secret information.
- 3.4.18 Involve the local Aboriginal community in the development of the interpretation plan and other materials and programs that interpret Aboriginal culture in the park.

4. Threats

4.1 Introduced species

Pest species are plants, animals and pathogens that have negative environmental, economic and social impacts and are most commonly introduced species. Pests can have impacts across the range of park values, including impacts on biodiversity, cultural heritage, catchment and scenic values. Weeds and major pests recorded in the park are listed in Table 6.

Table 6 Weeds and major pests recorded in the park

Common name	Scientific name	Comment
Weeds		
Bitou bush ^{1 2 3 4}	<i>Chrysanthemoides monilifera</i> subsp. <i>rotundata</i>	Scattered along coastal edge (north-east corner)
Broadleaf paspalum ³	<i>Paspalum mandiocanum</i>	Scattered throughout, particularly in moister forests and alongside roads and trails
Camphor laurel ⁵	<i>Cinnamomum camphora</i>	Isolated occurrences along Indigo Trail and Donohoes Road
Climbing asparagus ^{1 2}	<i>Asparagus africanus</i>	Isolated occurrences
Coastal morning glory ³	<i>Ipomoea cairica</i>	Scattered in eastern half of park
Crofton weed ⁵	<i>Ageratina adenophora</i>	Isolated occurrence in south-east (site of former banana plantation)
Giant Parramatta grass ^{3 5}	<i>Sporobolus fertilis</i>	Along roadsides in drier forests
Groundsel bush ⁶	<i>Baccharis halimifolia</i>	Isolated occurrence in south-east
Lantana ^{1 3 5}	<i>Lantana camara</i>	Scattered throughout; heavy infestations in parts
White passionflower ³	<i>Passiflora subpeltata</i>	Common in north-east of park; isolated occurrences elsewhere
Pest animals		
Red fox ^{3 6}	<i>Vulpes vulpes</i>	Scattered throughout but with greater numbers close to cleared land
Feral cat ^{3 6}	<i>Felis catus</i>	Scattered throughout
Wild dog ⁶	<i>Canis lupus familiaris</i> and <i>Canis lupus dingo</i>	Scattered throughout

1 Declared Weed of National Significance.

2 State-level priority weed (North Coast LLS 2017).

3 Declared as a key threatening process under the Biodiversity Conservation Act.

4 Threat abatement plan prepared.

5 Other priority weed; additional species of concern (North Coast LLS 2017).

6 Regional level priority weed or pest animal (North Coast LLS 2017 and North Coast LLS 2018 respectively).

The *Biosecurity Act 2015* and its regulations provide specific legal requirements for the response, management and control of biosecurity risks, including weeds and pest animals. These requirements apply equally to public and privately owned land. Under this framework, Local Land Services (LLS) has prepared regional strategic weed management plans and regional strategic pest animal management plans for each of its 11 regions, including North Coast Region (North Coast LLS 2017, 2018).

The LLS plans identify priority weeds and pest animals in each of the regions, plus the appropriate management response for the region (i.e. prevention/alert, eradication, containment or asset protection).

NPWS prepares regional pest management strategies which identify the operations and control actions undertaken by NPWS to meet the priorities from regional strategic pest and weed management plans. This also includes other important programs such as the *Biodiversity Conservation Program* (see Section 3.2). The overriding objective of the NPWS regional pest management strategies is to minimise adverse impacts of introduced species on biodiversity and other park and community values while complying with legislative responsibilities. These strategies are regularly updated. Reactive programs may also be undertaken in cooperation with neighbouring land managers, in response to emerging issues.

Pest species that are also key threatening processes may be managed under the *Biodiversity Conservation Program* where it includes key threatening processes strategies. The *Saving our Species* program has developed targeted strategies for managing key threatening processes using the best available information to minimise current and future impacts of key threatening processes on priority biodiversity values, including threatened species and ecological integrity.

Major areas of previous disturbance where weeds are a particular problem in the park include the former banana plantation on Kinki Ridge in the south-east of the park (shown as 'Regeneration Area' on Figure 1), and around Middle Head in the park's north-east. Control is currently being carried out by NPWS staff and contractors.

While bitou bush has been actively controlled on Middle Head, this is not a high priority control site under the bitou bush threat abatement plan (DEC 2006). Neither is the park a priority for fox control under the fox threat abatement plan (OEH 2011b).

The NPWS regional pest management strategy (OEH 2012a) highlights that scattered populations of wild dogs, feral cats and red foxes occur in Yarriabini National Park, and these are priorities for management. In addition, there have been reports of deer, goats and feral pigs, and cattle occasionally stray into the park (see Section 4.3).

Wild dogs have been recorded in Yarriabini National Park. Testing has confirmed that this population of wild dogs includes dingos of a high genetic purity. The *NSW Wild Dog Strategy* (DoI 2017) promotes a balance between managing wild dogs in areas where they have negative impacts and preserving the ecological role of dingos. The conservation of dingos is listed as one of the goals of the strategy. It is achieved via wild dog management plans which focus control on areas where the risk of negative impacts are greatest, and not undertaking control in other parts of the landscape with a low risk of negative impacts from wild dogs, to allow dingoes to fulfil their natural ecological role.

Desired outcomes

- Pest plants and animals are controlled and where possible eliminated.
- Negative impacts of introduced species on park values and neighbouring properties are minimised.

Management response

- 4.1.1 Manage introduced species in line with pest management strategies relevant to the park.
- 4.1.2 Monitor priority weeds and treat any new outbreaks where possible.
- 4.1.3 Support the formation of volunteer bush regeneration groups to assist in implementing weed control programs in the park.
- 4.1.4 Monitor new incursions and activity of introduced pest animal species and implement control where possible.

4.2 Inappropriate fire regimes

Fire is a natural feature of many environments. However, inappropriate fire regimes can lead to loss of particular plant and animal species and communities, and high frequency fires have been listed as a key threatening process under the Biodiversity Conservation Act (NSW SC 2000b). In particular, fire should be excluded from rainforest areas and too-frequent fire has been identified as a threat to Grove's paperbark. A fire frequency of 10–25 years has been recommended for this species of paperbark (Eco Logical Australia 2007). Conversely, a lack of fire can lead to invasion of headland kangaroo grasslands by shrubs, so a more-frequent fire frequency of 3–10 years is recommended to maintain these endangered grasslands (Eco Logical Australia 2007).

The fire ecology of some threatened species is not well understood. In the absence of this detailed information at the species level, the thresholds for communities recommended by Eco Logical Australia (2007), or as updated by future research, will be used to guide fire management.

The primary objectives of NPWS fire management are to protect life, property, community assets and cultural heritage from the adverse impacts of fire, while also managing fire regimes in parks to maintain and enhance biodiversity. NPWS also assists in developing fire management practices that contribute to conserving biodiversity and cultural heritage across the landscape, and implements cooperative and coordinated fire management arrangements with other fire authorities, neighbours and the community (OEH 2013a).

The fire history in what is now the park has been relatively well documented since the 1920s, particularly for larger fires which do not regularly occur in the park. There is little history of arson in the park and dry lightning storms in the area are rare. While the park contains dry sclerophyll forest on ridgelines, the presence of rainforest in gullies may help to limit the spread of fire. Any fire that starts in the park does not spread uniformly through the park.

One area of the park that causes concern to neighbouring landholders in relation to fire risk is the narrow Kinki Ridge in the south-east of the park. There are several vehicle trails along Kinki Ridge. These are important fire advantages which are needed to prevent the spread of fire onto neighbouring private property. There is an expectation by neighbours that they can continue to use these trails for accessing the park and their properties (see Section 5.2).

A fire management strategy has been prepared for Yarriabini National Park (OEH 2014b) which is updated periodically. It incorporates a study of the park's plant communities and their ecological responses to fire (Eco Logical Australia 2007). The fire management strategy outlines:

- the recent fire history of the park
- key assets within and adjoining the park, including sites of natural and cultural heritage value
- fire management zones, which may include asset protection zones

- fire control advantages such as management trails and water supply points.

Hazard reduction programs, ecological burning proposals and fire trail works are submitted annually to the Lower North Coast Bush Fire Management Committee.

The majority of the park is classified as land management zones which are managed to conserve biodiversity and protect cultural heritage. Fire is managed consistent with relevant fire thresholds for each vegetation type. Asset protection zones are established around assets that are at risk of fire. The major built assets that are vulnerable to fire in the park include The Pines Picnic Area, the visitor facilities at Yarriabini Lookout and the telecommunication facilities on Mount Yarrhapinni. Adequate asset protection zones around these assets need to be maintained in accordance with the park fire management strategy. The fire management strategy may need to be updated when the new camping area is developed.

A number of residences on neighbouring private property are located very close to the park's boundaries. Most of these are located downhill from the park and so only narrow asset protection zones need to be maintained within the park for their protection. A limited number of existing houses are at higher risk and the maintenance of wider zones adjacent to these properties is a high priority. Another asset protection zone was established before the park was reserved to protect an orchard on a neighbouring private property outside the park.

Desired outcomes

- Life, property and natural and cultural values are protected from fire.
- Fire regimes (frequency, seasonality and intensity) are appropriate for conservation of native plant and animal communities.

Management response

- 4.2.1 Implement the fire management strategy for Yarriabini National Park and update as required. In accordance with this strategy, manage fire within the majority of the park to protect its biodiversity, including the exclusion of fire from rainforest areas and along watercourses, and maintain identified asset protection zones.
- 4.2.2 Participate in the Lower North Coast Bush Fire Management Committee. Maintain cooperative arrangements with Rural Fire Service brigades and fire control officers, Forestry Corporation of NSW and surrounding landowners in regard to fuel management and fire suppression.
- 4.2.3 Encourage further research and monitoring into the ecological effects of fire in the park.

4.3 Inappropriate activities

Yarriabini National Park is a relatively small park which is connected to state forests and other national parks to the west, eventually linking to major national parks along the Great Escarpment. To the south, east and north-east the park borders private property, generally small rural holdings.

Neighbours make a valuable contribution to the management of the park by observing and informing NPWS of suspicious and inappropriate activities in the park, and providing advice on emerging problems in the general area.

Impacts from neighbouring lands include the straying of domestic animals such as stock, dogs and cats, and small encroachments of clearings. Other inappropriate activities include dumping garden waste and other rubbish in the park, removing plants such as cycads and

other protected plants, and collecting firewood for domestic use. The removal of dead wood and dead trees is a key threatening process which includes collecting fallen timber for firewood, and the removal of standing dead trees (NSW SC 2003).

Management issues associated with a minority of visitors to the park include the occasional theft or vandalism of equipment such as barbecues, picnic tables and vehicle counters; inappropriate use of four-wheel drive vehicles after wet weather; and off-trail use by trail bikes (motorcycles).

Given the presence of highly erodible soil types and steep slopes within the park, inappropriate recreational vehicle use poses a significant threat to park values. Particular problems arise from off-road riding of trail bikes. This has created erosion problems affecting soil stability and water quality within and downstream of the park, and has impacted the heath community adjacent to Tower Road. These impacts are likely to be exacerbated by the increased storm and severe rainfall events predicted to occur as a consequence of climate change (see Section 4.4). Motor vehicles, including trail bikes, are only permitted on park roads, not on management trails, walking tracks or mountain bike tracks.

There are also major public safety concerns arising from unregistered motorbikes being ridden by unlicensed riders. This is illegal and NPWS is working with the NSW Police, Forestry Corporation of NSW and other neighbours to address the environmental and social impacts of trail bike use in the park. Regular patrols of the park are carried out for law enforcement measures.

Desired outcomes

- The local community is aware of the significance of the park and of park management programs.
- Negative impacts on the park's values caused by visitors decrease over time.

Management response

- 4.3.1 In conjunction with neighbours, determine strategies to exclude stock and other domestic animals from the park. This may include provision of assistance to construct boundary fences.
- 4.3.2 Work with relevant regulatory authorities, the general community and park neighbours to promote the values of the park and discourage inappropriate activities in the park.
- 4.3.3 Adopt compliance strategies to ensure adherence to national park regulations.

4.4 Climate change

Human-induced climate change has been listed as a key threatening process under the Biodiversity Conservation Act (NSW SC 2000a), and the associated loss of habitat is listed under the Environment Protection and Biodiversity Conservation Act (TSSC 2001).

The latest information on projected changes to climate are from the NSW and ACT Regional Climate Modelling ('NARClim') project (OEH 2014a). The climate projections for 2020–2039 are described as 'near future', and projections for 2060–2079 are described as 'far future'. The snapshot shown in Table 7 is for the North Coast Region, which includes the park (OEH 2014a).

The projected increases in temperature, number of hot days and severe fire weather days (OEH 2014a) are likely to influence bushfire frequency and intensity across the North Coast Region and result in an earlier start to the bushfire season (DECCW 2010). Higher summer

rainfall and rainfall intensity in the region are likely to increase sheet and rill erosion on the steeper slopes of the hinterland. Expected declines in run-off in spring and winter are likely to reduce seepage flows and hence activity of some forms of gully erosion, although this change will be offset where stabilising vegetation declines. Higher summer and autumn rainfalls are likely to increase the risk of mass movement in all currently vulnerable slopes in the hinterlands, but negative water balances may offset this effect through reduced water content in soil profiles (DECCW 2010).

Climate change may significantly affect biodiversity by changing the size of populations and the distribution of species, and altering the geographical extent and species composition of habitats and ecosystems. Species most at risk are those unable to migrate or adapt, particularly those with small population sizes or with slow growth rates.

Table 7 North Coast climate change snapshot

Near future	Far future
Projected temperature changes	
Maximum temperatures are projected to increase in the near future by 0.4–1.0°C	Maximum temperatures are projected to increase in the far future by 1.5–2.4°C
Minimum temperatures are projected to increase in the near future by 0.5–1.0°C	Minimum temperatures are projected to increase in the far future by 1.6–2.5°C
The number of hot days will increase	The number of cold nights will decrease
Projected rainfall changes	
Rainfall is projected to decrease in winter	Rainfall is projected to increase in spring and autumn
Projected Forest Fire Danger Index changes	
Average fire weather is projected to increase during summer and spring	Severe fire weather days are projected to increase in summer and spring

Source: OEH 2014a.

The potential impact of climate change on the park is difficult to assess since it depends on the compounding effects of other pressures, particularly barriers to migration and pressure from introduced animals. However, if fire extent increases under future conditions of increased fire danger, fire-sensitive ecosystems such as dry rainforest could undergo structural and compositional changes. Changes in the fire regime are likely to compound the impacts of other climatic changes. For instance, disturbance by fire together with an increase in summer rainfall is likely to benefit weeds such as lantana.

Within the park, it is likely that rainforest areas will be under greater stress and erosive rainfall events will be more common, negatively impacting water quality in creeks and streams. Climate change may also improve conditions for a number of current rainforest weeds, and colonisation by new weeds is also likely (OEH 2011a). Sea level rise and storm surges may also inundate the dune areas north of Middle Head and increase the exposure of the vegetation on Middle Head to salt spray. Headland grasslands are at risk from rising sea levels, storm events, temperature rises and the carbon dioxide fertilisation effect (OEH 2011a).

Other specific impacts of climate change on the park are more difficult to predict since they will depend on the compounding effects of other pressures, particularly barriers to migration and pressure from weeds and feral animals. Programs to reduce pressures arising from such threats will help reduce the severity of the effects of climate change.

Desired outcomes

- The effects of climate change on natural systems are reduced.

Management response

- 4.4.1 Continue existing fire, pest and weed management programs to increase the park's ability to cope with climate change, and encourage research into appropriate indicators to monitor the effects of climate change.

5. Management operations and other uses

5.1 Management facilities

In order to protect the park's values, provide opportunities for visitors and facilitate management operations, it is important to build and maintain appropriate infrastructure.

Park roads and management trails

The primary management facility in the park is the network of park roads and management trails, as shown on Figure 1. Only those park roads and management trails shown on Figure 1 will be maintained.

A number of existing roads and trails which are not required for either management purposes or public access (see Section 3.4) will be closed and revegetated. Management trails in the Regeneration Area (see Figure 1) will be maintained as required and closed and revegetated when no longer needed for management purposes. Some other management trails in the park may need to be realigned to protect cultural or natural values (e.g. the eastern end of Middle Head Trail), to avoid private property, or to provide for safe and effective access to management facilities (e.g. dams).

As discussed in Section 3.4, the majority of existing park roads will be reclassified as management trails. A number of management trails will be gated to prevent unauthorised access in the north-east of the park (to protect cultural heritage) and in the Mount Yarrahapinni area (to address safety and vandalism) as shown on Figure 1. All other management trails will remain ungated unless management concerns arise, such as public safety, illegal activities, erosion and conflict between park users, or if needed for the development of the Summit to Sea walking route. Erosion is a major concern, with soils in much of the park characterised by high erosion hazard. However, some areas have an extreme erosion hazard and/or are at risk of mass movement (see Section 3.1).

To improve fire management along the park's northern boundary, the existing network of trails needs to be supplemented. An additional trail is needed to serve as a control line and provide access for hazard reduction or firefighting activities in the area. There is an old trail in the vicinity of the northern boundary within the park which could be reopened, however, work may be required to extend this trail. The new trail route needs to be further investigated in conjunction with Rural Fire Service, neighbouring landholders and the Aboriginal Consultative Group to determine its exact location in relation to the park and neighbouring private lands north of Scotts Mountain.

Quarries

As described in Section 1, the park includes two areas of Part 11 land which encompass two former quarries which still contain accessible gravel resources. Other disused quarries lie within the reserved area of the park. NPWS is responsible for the management of all the quarries in the park.

These quarries originally provided much of the gravel for the development of the road and trail network within the park and surrounding state forest, and historically provided gravel for the maintenance of this network. However, current road maintenance works rely on other sources of gravel obtained from private quarries outside the park.

The exclusion of the two main quarries on Indigo Trail and Tower Road from the park's reserved area was to ensure the continuation of access arrangements which existed immediately before the gazettal of the national park, so that the quarries could be managed

primarily for extraction rather than nature conservation purposes. The quarry on Indigo Trail may be required for the essential maintenance of the roads and management trails within and adjacent to the park in the future, and will be managed according to relevant legislation and NPWS policies and guidelines.

Only the larger quarry on Indigo Trail is currently registered with the relevant regulatory authority. The other quarries located within the park, including the other Part 11 quarry on Tower Road, no longer serve any management purpose and will be closed, made safe and, where possible, revegetated.

Desired outcomes

- Management facilities adequately serve management needs and have minimal impact.

Management response

Park roads and management trails

- 5.1.1 Maintain all park roads and management trails as shown on Figure 1 or in accordance with this plan.
- 5.1.2 In conjunction with NSW Rural Fire Service, neighbouring landholders and the Aboriginal Consultative Group, and subject to the necessary environmental approvals, construct and maintain a new management trail in the vicinity of the park's boundary north of Scotts Mountain.
- 5.1.3 Close and allow to revegetate any trail or road not shown on Figure 1. Realign trails as necessary in accordance with this plan.
- 5.1.4 Gate and/or signpost management trails to restrict unauthorised access.

Quarries

- 5.1.5 Develop and implement a quarry management plan for the quarry on Indigo Trail and, subject to appropriate approvals, use the quarry to supply material for essential maintenance of roads and trails within the park or accessing the park.
- 5.1.6 Allow natural revegetation of the quarries no longer required for extraction (i.e. all quarries other than Indigo Trail quarry). If necessary, undertake active rehabilitation works.
- 5.1.7 Seek the addition of the Tower Road quarry into the reserved area of the park.

5.2 Other uses

Telecommunication facilities

Telecommunication facilities at Mount Yarrhapinni constitute the most significant non-park use within the park. Most of these facilities are located on Part 11 land on the summit of the mountain, and include three large telecommunication towers, three small towers, one pole and a number of buildings associated with the towers. This infrastructure supports communications for emergency services, and commercial and public television and radio stations. Another tower is located on a small rise to the west of the summit within the reserved area of the park. Any new telecommunications facilities proposed in the park (including additional antennae on existing towers) require NPWS consent.

Most of the towers on Mount Yarrahapinni are situated in separate fenced and locked compounds, however, the level of security varies. Some sections of fencing are old and rusted, and there is barbed wire within reach. The area is unsightly and is not considered suitable for promotion to the public (see Section 3.4).

Given security issues and other constraints, it is proposed to restrict public vehicular access to the tower precinct (see Section 3.4). Any restrictions to access will be carried out in consultation with authorised tower users.

Access to neighbouring lands

All roads within the park currently lie on Crown land vested in the Minister administering the National Parks and Wildlife Act (referred to in this plan as 'ministerial roads'). Although not part of the reserved area of park, use of ministerial roads is governed by this plan and the National Parks and Wildlife Regulation. Way Way Creek Road is required for ongoing access to neighbouring state forest and is designated as a park road which is open to the general public.

A road in the north-east of the park (the easternmost part of Nursery Trail) currently provides the only access to neighbouring private property and is designated as a neighbour access trail, which is available for public vehicle use primarily for the purposes of accessing this property. This trail is maintained by NPWS, although the neighbouring landholder may undertake additional maintenance works with the written agreement of NPWS. If a permanent upgrade in road conditions were proposed, a licensed access arrangement under section 153C of the National Parks and Wildlife Act may be required before the works are commenced.

There is no requirement for the other roads to remain as ministerial roads. A number of roads on Kinki Ridge are used as secondary accesses to neighbouring private properties, however, there are alternative access routes available to each of these properties. Use of these roads to access private properties is currently informal and needs to be appropriately authorised, in particular for use during emergencies. Certain neighbours to the south of the park in the Yarriabini Lookout area currently use park roads to access their properties. These roads are to be reclassified as management trails, so appropriate authorisation will be needed to allow this access to continue.

Utility corridors

Essential Energy has two powerlines traversing the park. One traverses part of the south-west corner of the park to service both sets of towers on Mount Yarrahapinni. The other generally follows Grassy Head Road and traverses the park near Middle Head. These power lines are not covered by a formal easement, however, in accordance with the *Electricity Supply Act 1995* a network operator can operate and use the existing powerlines whether or not there is a formal easement in place.

Clearings and vehicle trails along the powerlines which provide access to the poles have significant environmental and visual impacts. As discussed in Section 3.4, the use of Headland Trail and associated turn-around areas is impacting the *Themeda* Grassland Endangered Ecological Community on Middle Head. As such, the section of Headland Trail east of the powerline (i.e. the section that is not essential for powerline access and maintenance) will be closed and revegetated as appropriate.

While no access or maintenance agreement currently exists with Essential Energy, the company must comply with the National Parks and Wildlife Act and Regulation when carrying out any maintenance or replacement work and will require NPWS consent for certain works. There is periodic management of vegetation under both powerlines, however, there is little control of weed growth under the lines.

In 2012, a fibre-optic cable was installed to provide improved data capacity at one of the telecommunication towers. It is buried in the vicinity of the powerlines servicing these towers. Other telecommunications operators are likely to seek approval to install cable links to their towers. Above-ground cabling has the potential to further reduce the scenic amenity of the park. However, due to the steepness of the terrain and the potential for erosion, it is desirable to limit the amount of ground and vegetation disturbance associated with the installation of these cables.

Orchard

A section of Way Way State Forest which was revoked and reserved as park included an orchard that is used for cultivating bananas and avocados (located in the north-east of the park as indicated on Figure 1). Located in a small catchment which drains away from the park, the orchard has been operating continuously under an occupation permit first issued by the then Forestry Commission of NSW in 1941. The occupation permit nominally covers an area of 5 hectares, but 6.7 hectares has been under cultivation for several decades. The permit is considered an existing interest under section 39 of the National Parks and Wildlife Act, and has continued to be renewed on an annual basis by NPWS since the park's creation. Access to the area of park covered by the occupation permit is via the permit holder's property. There are no significant conservation values in the land held under the permit as it has been cleared and farmed since the 1940s, and has been subjected to significant chemical loads.

Trig stations

Two trigonometric (trig) stations are located within the park, on Mount Yarrahapinni and Scotts Mountain. An agreement between NPWS and the former Central Mapping Authority provides a continued right of access to the stations for survey purposes, subject to environmental impact assessment. Both sites are accessible by vehicle, although prior arrangement will be needed due to the designation of both vehicle accesses as management trails.

Desired outcomes

- Non-NPWS uses have minimal impact on natural, cultural and scenic values.

Management response

Telecommunications

- 5.2.1 Continue to license the occupation and operation of the telecommunication towers on Mount Yarrahapinni and the western summit.

Neighbour access

- 5.2.2 Pursue reservation of roads and trails not required for access to adjacent private property or state forest as additions to the park.
- 5.2.3 Continue to allow the neighbour access trail in the park's north-east to be used for private property access at existing use levels. Should levels of use increase, seek to make access arrangements subject to a formal licence. Allow animals to be taken on this trail as long as the animals remain in the vehicle.
- 5.2.4 Should the neighbour access trail referred to in 5.2.3 no longer be required for private property access, designate and manage it as a management trail.

- 5.2.5 Work with neighbours in the Kinki Ridge and Yarriabini Lookout areas to formalise access arrangements. If use is causing unacceptable damage to park values or to road surfaces, restrictions will be put in place.

Utilities

- 5.2.6 Where practicable, require future proposals for cables to the telecommunications towers to be co-located along the existing disturbed area under the powerlines. This is in preference to overhead cabling or underground cables in new locations.
- 5.2.7 Continue to permit vegetation management to occur under the powerlines, and encourage this management to include the control of weeds.

Orchard

- 5.2.8 Continue to allow for the ongoing operation of the orchard as an existing interest by renewing the occupation permit each year.

Trig stations

- 5.2.9 Continue to permit authorised access for use and maintenance of the trigonometrical stations under existing or future formal agreements between NPWS and the relevant authority.

6. Implementation

This plan of management establishes a scheme of operations for the park.

Identified activities for implementation are listed in Table 8.

Relative priorities are allocated against each activity as follows:

- **High priority** activities are those which are imperative to achieving the plan's objectives and desired outcomes and 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.
- **Ongoing** is for activities that are undertaken on an annual basis or statements of management intent that will direct the management response if an issue that arises.
- **As required** activities are those that are actioned on an as needs basis.

This plan of management does not have a specific term and will stay in force until amended or replaced in accordance with the National Parks and Wildlife Act.

Table 8 List of management responses

Plan reference	Management response	Priority
3.1 Geology, landforms and hydrology		
3.1.1	Consider scenic amenity of the park's landscape in all proposed developments in the park.	As required
3.1.2	Undertake all works and activities in a manner that minimises erosion and sedimentation/pollution of creeks and other waterbodies.	Ongoing
3.2 Biodiversity		
3.2.1	Encourage or undertake a systematic survey for Grove's paperbark to determine its full distribution within the park.	High
3.2.2	Encourage or undertake surveys for other known or predicted threatened species and protected species to inform management practices.	Medium
3.2.3	Implement relevant strategies in the <i>Biodiversity Conservation Program</i> and recovery plans for threatened species, populations and ecological communities.	As required
3.2.4	Liaise with neighbours to encourage the retention and appropriate management of key habitats and corridors adjacent to the park.	Ongoing
3.2.5	Remove hoop pine wildlings within the park to prevent them spreading.	Medium
3.2.6	Manage the flooded gum plantation to encourage regeneration of the rainforest understorey.	Low
3.2.7	Undertake proposed works on Middle Head to address impacts on the endangered <i>Themeda</i> (kangaroo grass) grasslands.	High
3.2.8	Encourage targeted surveys of koalas in the park and research into the reasons for the decline of the koala in the area and the suitability	Medium

Plan reference	Management response	Priority
	of remaining habitat within the park. If future targeted surveys for the koala fail to identify populations of the species in the park, consider and assess the implications of using the park for relocating injured or orphaned koalas that cannot be released into the wild at their original site.	
3.3 Shared heritage		
3.3.1	Implement the memorandum of understanding with the Aboriginal Consultative Group. In accordance with the memorandum, actively pursue the advice of the group in the management of the park, particularly matters related to Aboriginal heritage and projects to protect cultural values.	Ongoing
3.3.2	In accordance with the memorandum of understanding, facilitate access by Aboriginal community members to areas of the park.	As required
3.3.3	Encourage further research into the Aboriginal heritage values of the park in consultation with the Aboriginal Consultative Group, local Aboriginal land councils and Elders groups.	Medium
3.3.4	Work with the Aboriginal Consultative Group to identify Aboriginal names for key sites, places and culturally significant features within the park, and use these names when interpreting the park to visitors. Where appropriate, work with the Geographical Names Board to have these names formally adopted.	Medium
3.3.5	Retain the heritage hoop pines along Way Way Creek Road and the majority of the pines at The Pines Picnic Area, subject to regular tree safety checks.	Low
3.3.6	Retain the Parker family memorial cairns. Further memorials will only be permitted in accordance with NPWS policy, and only through formal sponsorship arrangements for the installation of visitor infrastructure in accordance with this plan. Unauthorised memorials will be removed.	Medium
3.3.7	Record other historic features present in the park, including the lettered trees, and allow these to decay with time.	High
3.3.8	Encourage research into the history of the park.	Low
3.3.9	In liaison with the relevant regulatory authority, assess safety requirements and the heritage significance of abandoned mines once located. Where appropriate, undertake measures to protect public safety and the historical values of the mines. This may include fencing or signage.	Medium
3.4 Visitor use and interpretation		
Vehicular access		
3.4.1	Allow public vehicular access on the park roads shown on Figure 1.	High/As required
3.4.2	Continue to work with Kempsey Shire Council to improve delineation of the Middle Beach carpark to address encroachment issues and improve the amenity of the area.	Medium
Recreational activities		
3.4.3	Construct and/or maintain the bushwalking tracks shown on Figure 1 to the standards listed in Table 4 and install signage as required.	Medium

Plan reference	Management response	Priority
3.4.4	Establish a suitable carparking area on Tower Road for the Heath Track if demand requires.	As required
3.4.5	Do not allow horse riding in general or camping with horses in the park. Issue consents as appropriate in accordance with this plan for horse rides within the park and ensure conditions limit potential impacts on park values.	Ongoing
3.4.6	Allow cycling on park roads, management trails and the two designated single-use cycling tracks shown on Figure 1. Roads, trails and cycling tracks may be closed to cycling where there are unacceptable environmental or cultural impacts, or risks to users. The alignment of the cycling tracks may be modified to limit erosion potential and address other environmental and safety issues. No constructed, imported infrastructure (e.g. ramps and seesaws) will be allowed. Signage will be installed as required.	Ongoing/ As required
Day use areas		
3.4.7	Maintain The Pines Picnic Area and the Yarriabini Lookout as day use areas, with use permitted only in daylight hours unless as part of an authorised activity.	Ongoing
3.4.8	Manage the flooded gum plantation adjacent to The Pines Picnic Area to reduce tree fall risk.	Low
3.4.9	Remove a small proportion of hoop pines surrounding The Pines Picnic Area on an as needs basis to improve the amenity of the area and address visitor safety.	Low
3.4.10	Control the regrowth of vegetation to maintain views at Yarriabini Lookout and the informal lookout on Donohoes Road.	Ongoing
Camping areas		
3.4.11	Prepare and implement a site plan for the establishment of a basic camping area in the location indicated on Figure 1 in accordance with this plan.	High/ Medium
3.4.12	Fires in the park may only be permitted with prior consent from NPWS, other than in designated fireplaces in The Pines Picnic Area and, if installed, the camping area.	Ongoing
3.4.13	Require groups of more than 15 people wanting to camp anywhere in the park to obtain prior written consent.	Ongoing
3.4.14	Allow bush camping at sites more than 300 metres from park roads or 300 metres from the camping area when it is being used by authorised groups. Campers will be encouraged to follow minimum impact bushwalking practices.	Ongoing
Group and commercial activities		
3.4.15	Require all organised group activities involving more than the group size limits given in Table 5 to obtain prior written consent. Conditions may be included to minimise impacts on park values and other visitors.	Ongoing
3.4.16	Consult with the Aboriginal Consultative Group regarding applications by commercial tour operators to undertake activities in the park. All commercial activities on park require NPWS authorisation.	As required

Plan reference	Management response	Priority
Interpretation of park values		
3.4.17	Prepare and implement an interpretation plan for the park as part of a broader strategy for parks in the Nambucca Valley. Ensure that interpretation acknowledges and incorporates cultural stories and local Aboriginal language but protects secret information.	Medium
3.4.18	Involve the local Aboriginal community in the development of the interpretation plan and other materials and programs that interpret Aboriginal culture in the park.	As required
4.1 Introduced species		
4.1.1	Manage introduced species line with pest management strategies relevant to the park.	Ongoing
4.1.2	Monitor priority weeds and treat any new outbreaks where possible.	Ongoing
4.1.3	Support the formation of volunteer bush regeneration groups to assist in implementing weed control programs in the park.	Low
4.1.4	Monitor new incursions and activity of introduced pest animal species and implement control where possible.	Ongoing
4.2 Inappropriate fire regimes		
4.2.1	Implement the fire management strategy for Yarriabini National Park and update as required. In accordance with this strategy, manage fire within the majority of the park to protect its biodiversity, including the exclusion of fire from rainforest areas and along watercourses, and maintain identified asset protection zones.	Ongoing
4.2.2	Participate in the Lower North Coast Bush Fire Management Committee. Maintain cooperative arrangements with Rural Fire Service brigades and fire control officers, Forestry Corporation of NSW and surrounding landowners in regard to fuel management and fire suppression.	Ongoing
4.2.3	Encourage further research and monitoring into the ecological effects of fire in the park.	Medium
4.3 Inappropriate activities		
4.3.1	In conjunction with neighbours, determine strategies to exclude stock and other domestic animals from the park. These may include provision of assistance to construct boundary fences.	As required
4.3.2	Work with relevant regulatory authorities, the general community and park neighbours to promote the values of the park and discourage inappropriate activities in the park.	Medium
4.3.3	Adopt compliance strategies to ensure adherence to national park regulations.	As required
4.4 Climate change		
4.4.1	Continue existing fire, pest and weed management programs to increase the park's ability to cope with climate change, and encourage research into appropriate indicators to monitor the effects of climate change.	Ongoing

Plan reference	Management response	Priority
5.1 Management operations and other uses		
Park roads and management trails		
5.1.1	Maintain all park roads and management trails as shown on Figure 1 or in accordance with this plan.	Ongoing/High
5.1.2	In conjunction with NSW Rural Fire Service, neighbouring landholders and the Aboriginal Consultative Group, and subject to the necessary environmental approvals, construct and maintain a new management trail in the vicinity of the park's boundary north of Scotts Mountain.	High
5.1.3	Close and allow to revegetate any trail or road not shown on Figure 1. Realign trails as necessary in accordance with this plan.	Ongoing/High
5.1.4	Gate and/or signpost management trails to restrict unauthorised access.	High
Quarries		
5.1.5	Develop and implement a quarry management plan for the quarry on Indigo Trail and, subject to appropriate approvals, use the quarry to supply material for essential maintenance of roads and trails within the park or accessing the park.	As required
5.1.6	Allow natural revegetation of the quarries no longer required for extraction (i.e. all quarries other than Indigo Trail quarry). If necessary, undertake active rehabilitation works.	Medium
5.1.7	Seek the addition of the Tower Road quarry into the reserved area of the park.	Low
5.2 Other uses		
Telecommunications		
5.2.1	Continue to license the occupation and operation of the telecommunication towers on Mount Yarrhapinni and the western summit.	Ongoing
Neighbour access		
5.2.2	Pursue reservation of roads and trails not required for access to adjacent private property or state forest as additions to the park.	Low
5.2.3	Continue to allow the neighbour access trail in the park's north-east to be used for private property access at existing use levels. Should levels of use increase, seek to make access arrangements subject to a formal licence. Allow animals to be taken on this trail as long as the animals remain in the vehicle.	Ongoing
5.2.4	Should the neighbour access trail referred to in 5.2.3 no longer be required for private property access, designate and manage it as a management trail.	As required
5.2.5	Work with neighbours in the Kinki Ridge and Yarriabini Lookout areas to formalise access arrangements. If use is causing unacceptable damage to park values or to road surfaces, restrictions will be put in place.	Medium/As required
Utilities		
5.2.6	Where practicable, require future proposals for cables to the telecommunications towers to be co-located along the existing	As required

Plan reference	Management response	Priority
	disturbed area under the powerlines. This is in preference to overhead cabling or underground cables in new locations.	
5.2.7	Continue to permit vegetation management to occur under the powerlines, and encourage this management to include the control of weeds.	As required
	Orchard	
5.2.8	Continue to allow for the ongoing operation of the orchard as an existing interest by renewing the occupation permit each year.	As required
	Trig stations	
5.2.9	Continue to permit authorised access for use and maintenance of the trigonometrical stations under existing or future formal agreements between NPWS and the relevant authority.	As required

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Appendix A: Major soil landscapes present in the park

Soil Landscape name	Location in park	Landscape	Soils	Significant soil characteristics
Big Smoky	North-east of Mount Yarrahapinni and around Scotts Mountain	Rolling to steep hills on granitics. Slopes up to 50%.	Well-drained lithosols on crests and steep slopes; red earths and red podzolic soils on sideslopes.	Stony soils with low wet bearing strength, acidity, high erodibility, sodicity/dispersibility, hardsetting surfaces and low fertility. Steep slopes; mass movement hazard; high to severe sheet and gully erosion hazards; moderate wind erosion hazard; localised shallow soils; localised non-cohesive soils; rock outcrop; engineering hazard; rapid drainage; low moisture availability.
Big Smoky (var.a) Erosional variant	South-east of Scotts Mountain	Rolling hills on granitics. Slopes to 10–25%.		High sheet and gully erosion risks (more moderate than big smoky); moderate wind erosion risk; localised shallow soils; rock outcrop; rapid drainage; low moisture availability; seasonal waterlogging; low soil fertility.
Rosewood Road	Isolated patch east of The Pines Picnic Area; also in headwaters of Stony and Butchers creeks north of Mt Yarrahapinni	Undulating to rolling low hills on lower slopes on hornfels and siltstones. Slopes 10–25%, occasionally to 33%.	Well-drained red podzolic soils and krasnozems.	Stony soils with organic topsoils; high subsoil erodibility, strong acidity; localised steep slopes; moderate sheet and high gully erosion risk; engineering hazard.
Way Way	most of park	Steep to very steep hills with narrow crests, escarpments and occasional colluvial footslopes on hornfels. Slopes 30–70%.	Well-drained red dermosols and red podzolic soils, with thinner lithosols on steep slopes and imperfectly drained soloths in areas of locally impeded drainage.	Stony soils with organic topsoils, high erodibility, low subsoil permeability, strong acidity and low subsoil available waterholding capacity. Steep slopes; moderate to high localised mass movement hazard; high sheet erosion hazard; moderate localised gully erosion hazard; localised shallow soils; engineering hazards.
Way Way (var. a) Colluvial variant	Mount Yarrahapinni escarpment	Very steep to precipitous slopes and gradients >50%.		High mass movement hazards and thin soils.

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Soil Landscape name	Location in park	Landscape	Soils	Significant soil characteristics
Thumb Creek	Isolated patch around The Pines Picnic Area	Narrow, discontinuous valley flats below steep hills and mountains; gradients 5–10%.	Shallow to moderately deep stony brown prairie soils with shallow stony alluvial soils and gravel beds.	Stony soils with organic topsoils, high erodibility, high permeability and low available waterholding capacity.; localised rockfall hazard; rapid drainage; high run-on; flood hazard; seasonal waterlogging; groundwater pollution hazard; gully erosion risk; streambank erosion hazard; shallow soils; non-cohesive soil materials.
Goolawah	Northern half of section east of Grassy Head Rd	Beach landscape. Holocene outer barrier sands.	Rapidly drained siliceous sands and weakly developed podzols on stable dunes.	Sandy soils with high erodibility, high permeability, low available waterholding capacity and low fertility.