

PLANCHONELLA NATURE RESERVE

PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

Part of the Department of Environment and Conservation (NSW)

October 2004

This plan of management was adopted by the Minister for the Environment on 25 October 2004.

For additional information or enquiries on any aspect of this reserve, contact the Service's Narrabri Area Office at 1/100 Maitland Street, Narrabri, NSW 2390, or by phone on (02) 6792 7300.

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FOREWORD

Planchonella Nature Reserve is located 14 kilometres north-west of Coolatai and 44 kilometres north of Warialda, in the shire of Yallaroi. The Reserve is 717 hectares in size and was gazetted in July 1999.

Planchonella Nature Reserve is situated in the Brigalow Belt Bioregion. The largest vegetation type in the Reserve is Semi-evergreen Vine Thicket, which is listed as an Endangered Ecological Community under the *Threatened Species Conservation Act, 1995*. Semi-evergreen Vine Thicket is a form of dry rainforest with trees and shrubs less than 10m in height, vines and deciduous tree species that have affinities with species from subtropical rainforest. Planchonella Nature Reserve is the main NSW reserve containing this community.

Eight mammal species, 10 reptile and amphibian species, and over 80 bird species have been recorded in Planchonella Nature Reserve. The Reserve provides important habitat for the Black-striped Wallaby, which is an endangered species under the *Threatened Species Conservation Act, 1995*, as well as for five threatened bird species and one threatened bat species. Other threatened species may also use the Reserve.

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

A draft plan of management for Planchonella Nature Reserve was placed on public exhibition for three months from 19 September until 19 December 2003. The exhibition of the plan of management attracted 3 submissions that raised 12 issues. All submissions received were carefully considered before adopting this plan of management.

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

Bob Debus
Minister for the Environment

1. NATURE RESERVES IN NEW SOUTH WALES

1.1 LEGISLATIVE AND POLICY FRAMEWORK

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

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

A plan of management is a statutory document under the National Parks and Wildlife Act. No operations may be undertaken within Planchonella Nature Reserve except in accordance with this plan. This plan will also apply to any future additions to Planchonella Nature Reserve. Where management strategies or works are proposed for the nature reserve or any additions that are not consistent with this plan, an amendment to the plan will be required.

1.2 MANAGEMENT PURPOSES AND PRINCIPLES

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

Under the Act, nature reserves are managed to:

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

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

2. PLANCHONELLA NATURE RESERVE

2.1 LOCATION, GAZETTAL AND REGIONAL SETTING

Planchonella Nature Reserve (hereafter known as “the Reserve”) is located 14 kilometres north-west of Coolatai and 44 kilometres north of Warialda, in the shire of Yallaroi. The Reserve is 717 hectares in size and was gazetted in July 1999. Nearby reserves managed by Narrabri Area include Careunga Nature Reserve (75km west-north-west) and Midkin Nature Reserve (84km south-west). Kwiambal National Park (32km east) and Arakoola Nature Reserve (19km south-east) are managed by Glen Innes Area. Further reserves in the area, or additions to existing reserves may arise out of the Brigalow Belt South Bioregion and Nandewar Bioregion Assessments.

Prior to gazettal, the Reserve formed a grazing and cropping property. At present, surrounding landuse activities are primarily cattle grazing and cropping.

2.2 NATURAL AND CULTURAL HERITAGE

Landform, Geology and Soils

Planchonella Nature Reserve is situated in the Brigalow Belt Bioregion. The area consists of low basalt hills in a gently undulating landscape. Soils are deep friable self-mulching and are of basaltic origin. Soils vary from moderately stony with floaters of 15 to 25cm to almost stone-free prairie soils on lower slopes and plains (Henderson, 1997).

Native Plants

Three major vegetation types have been identified in the Reserve. The largest vegetation type consists of Semi-evergreen Vine Thicket (SEVT) with emerging sclerophyll woodland. SEVT is listed as an Endangered Ecological Community under the *Threatened Species Conservation Act, 1995*. SEVT is a form of dry rainforest with trees and shrubs less than 10m in height, vines and deciduous tree species that have affinities with species from subtropical rainforest (Ayers *et al*, 1999). Planchonella Nature Reserve is the main NSW reserve containing SEVT. It is also one of the few recorded sites in NSW for the Western Black Plum (*Pouteria cotinifolia* var. *pubescens*). Planchonella Nature Reserve received its name from this rare plant, which was previously named *Planchonella cotinifolia* var. *pubescens*. Similar vegetation types to Planchonella Nature Reserve occur in the NPWS Northern Tablelands Region. The Narrabri Area shall liaise with the Northern Tablelands Region for advice regarding monitoring programs.

The SEVT community is typically composed of Peach Bush or Western Koda (*Ehretia membranifolia*), Orange Olive Plum (*Elaeodendron australe* var. *augustifolium*), Quinine Bush (*Alstonia constricta*), Native Olive (*Notelaea microcarpa*), Wallaby Apple (*Pittosporum spinescens*) Western Black Plum (*Pouteria cotinifolia* var. *pubescens*) Supplejack (*Ventilago viminalis*), Hard Alectryon (*Alectryon subdentatus*), and Wilga (*Geijera parviflora*) (Henderson, 1997 and Williams, 1998). Many SEVT vines and shrubs are also present, including: Currant Bush (*Carissa ovata*), Gargaloo (*Parsonsia eucalyptophylla*), Wonga Wonga Vine (*Pandorea pandorana*), *Spartothamnella juncea*, and Tarvine (*Boerhavia dominii*) (Ayers *et al*, 1999). Emerging sclerophyll trees include White Box (*Eucalyptus albens*), Silver-leaved Ironbark (*Eucalyptus melanophloia*),

White Cypress Pine (*Callitris glaucophylla*) and Belah (*Casuarina cristata*) (Henderson, 1997).

The second vegetation community is composed of old cropping lands surrounding much of the SEVT/sclerophyll vegetation. These lands are dominated by exotic grasses and herbs. Some native plants are regenerating in parts. Trees in this community occur along watercourses or along the boundary fence line, and include Wilga (*Geijera parviflora*) and Weeping Myall (*Acacia pendula*).

The third vegetation community is a savanna woodland, composed mainly of Silver-leaved Ironbark (*Eucalyptus melanophloia*) and Wilga (*Geijera parviflora*), as well as a small stand of Belah (*Casuarina cristata*) (Henderson, 1997).

The Reserve also contains the orchid *Cymbidium canaliculatum*, which is a protected species under the *National Parks and Wildlife Act, 1974*. The National Parks and Wildlife Service has listed the species as protected in order to regulate the use of the orchid. As a protected species, a licence is required to remove any part of the orchid from the wild.

Native Animals

The Reserve provides important habitat for the Black-striped Wallaby (*Macropus dorsalis*), which is an endangered species under the *Threatened Species Conservation Act, 1995*. The Bush Stone-curlew (*Burhinus grallarius*) and the Squatter Pigeon (*Geophaps scripta*) are also endangered species found in the local area.

Planchonella Nature Reserve also provides habitat for a number of vulnerable species listed in the *Threatened Species Conservation Act, 1995*, including: the Glossy Black-Cockatoo (*Calyptorhynchus lathami*), Turquoise Parrot (*Neophema pulchella*), Brown Treecreeper (*Climacteris picumnus*), Speckled Warbler (*Pyrrholaemus sagittatus*) Black-chinned Honeyeater (*Melithreptus gularis gularis*) and the Yellow-bellied Sheath-tail Bat (*Saccolaimus flaviventris*) (RACD, 2002). Other vulnerable species predicted to be present within the reserve include: Pale-headed Snake (*Hoplocephalus bitorquatus*), Koala (*Phascolarctos cinereus*), Square-tailed Kite (*Lophoictinia isura*), Australian Bustard (*Ardeotis australis*), Barking Owl (*Ninox connivens*), Masked Owl (*Tyto novaehollandiae*), and the Painted Honeyeater (*Grantiella picta*) (Bioclimatic Predictions, 2003).

The Reserve forms part of the western limit of the range of the White-browed Scrubwren (*Sericornis frontalis*), the Rainbow Lorikeet (*Trichoglossus haematodus*) and the Chocolate Wattled Bat (*Chalinolobus morio*). It also forms part of the eastern limit of the White-winged Fairy Wren (*Malurus leucopterus*), Emu (*Dromaius novaehollandiae*), Singing Honeyeater (*Lichenostomus virescens*), Spotted Bowerbird (*Chlamydera maculata*) and the Black-faced Woodswallow (*Artamus cinereus*).

The dense vegetation of the Reserve provides a refuge for smaller macropods such as the Red-necked Wallaby (*Macropus rufogriseus*) and the Swamp Wallaby (*Wallabia bicolor*) (Henderson, 1997). Other mammals occupying the Reserve include the Common Brushtail Possum (*Trichosurus vulpecula*), Eastern Grey Kangaroo (*Macropus giganteus*), Gould's Long-eared Bat (*Nyctophilus gouldi*) and Lesser Long-eared Bat (*Nyctophilus geoffroyi*).

Planchonella Nature Reserve provides habitat for over eighty species of birds. The mature silver-leaved ironbarks (*Eucalyptus melanophloia*) are favoured by many small birds for nesting and feeding. The small areas of cleared land found high in the west of the Reserve are utilised by Emus for feeding and nesting (Henderson, 1997). Some of the other species inhabiting the Reserve include the Wedge-tailed Eagle (*Aquila audax*), Nankeen Kestrel (*Falco cenchroides*), Bar-shouldered Dove (*Geopelia humeralis*), Red-winged Parrot (*Aprosmictus erythropterus*), Fan-tailed Cuckoo (*Cacomantis flabelliformis*), Southern Boobook (*Ninox boobook*), Sacred Kingfisher (*Todiramphus sanctus*), White-throated Treecreeper (*Cormobates leucophaeus*), and the Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*).

Reptiles and amphibians found within the Reserve include species such as the Soft-tailed Gecko (*Diplodactylus williamsi*), Bynoe's Gecko (*Heteronotia binoei*), Green Tree Frog (*Litoria caerulea*), Lace Monitor (*Varanus varius*), Eastern Brown Snake (*Pseudonaja textilis*), Shingleback Lizard (*Trachydosaurus rugosus*) and skinks including *Ctenotus robustus*, *Anomalopus leuckartii*, *Carlia vivax*, *Lygisaurus foliorum*, *Cryptoblepharus virgatus*, and *Morethia boulengeri*. (RACD, 2002)

Aboriginal Heritage

There are no known Aboriginal sites on the Reserve. Planchonella Nature Reserve was part of the area occupied by the Goomeroi people and is located in the Toomelah Local Aboriginal Land Council area.

Non-Aboriginal Heritage

The Reserve was previously private property, called 'Bim Bimble', in which disturbance of the vegetation occurred from land clearing, track construction and grazing.

No structures or artefacts of historical significance are known on the reserve. The 'Bim Bimble' farmhouse and associated structures do not form part of the Reserve, and appear to be of minimal heritage value.

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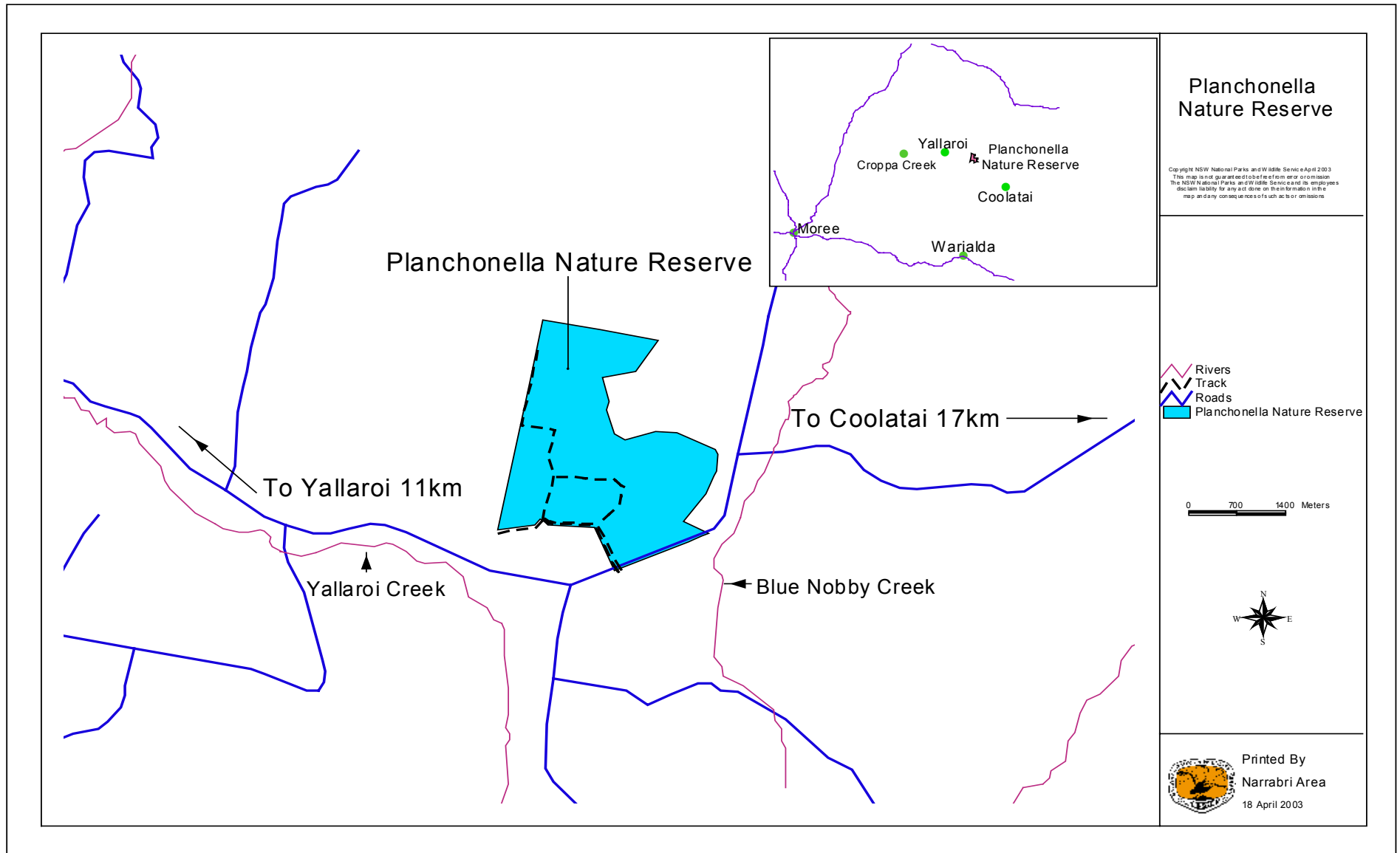
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3. MANAGEMENT ISSUES AND STRATEGIES

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

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

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

Current Situation	Desired Outcomes	Strategies	Priority
<p>Native plant and animal conservation</p> <p>The Reserve provides habitat for the endangered Black-striped Wallaby. The Reserve also provides possible habitat for the endangered Bush Stone-curlew and squatter pigeon.</p> <p>Habitat is also provided for the following vulnerable species; Glossy Black-Cockatoo, Turquoise Parrot, Brown Treecreeper, Speckled Warbler, the Black-chinned Honeyeater and the Yellow-bellied Sheathtail Bat.</p> <p>The Reserve contains the Endangered Ecological Community Semi-evergreen Vine Thicket. This is the main area in NSW where this unique assemblage of species is protected. Much of the reserve is surrounded by land cleared for agriculture.</p>	<p>All native plant and animal species and communities are conserved.</p> <p>Structural diversity and habitat values are restored in areas subject to past farming operations and clearing.</p>	<ul style="list-style-type: none"> • Undertake regular surveys for threatened and vulnerable fauna species. Monitor distribution of these species. • Monitor vegetation, particularly the distribution of the SEVT community, through the use of photo monitoring. • Investigate management options, including research outcomes, for the SEVT community. • Monitor vegetation recovery in areas which have been previously cleared and used for agricultural purposes. • Encourage research into the ecology and management of the SEVT community. • Work with neighbours and vegetation management committees to encourage conservation of remnant native vegetation in the vicinity of the reserve. 	<p>High</p> <p>Medium</p> <p>Medium</p> <p>High</p> <p>Medium</p> <p>Medium</p>

<p>Introduced species</p> <p>Feral animals identified in the Reserve include pigs and foxes. The house mouse has also been identified in the Reserve.</p> <p>Noxious weeds present in the Reserve include Prickly Pear (<i>Opuntia stricta</i>), Bathurst Burr (<i>Xanthium spinosum</i>), Noogoora Burr (<i>X. occidentale</i>) and Saffron Thistle (<i>Carthamus lanatus</i>). None are considered to pose a significant threat to the reserve at present.</p> <p>Other weeds include Coolatai Grass (<i>Hyparrhenia hirta</i>) and Farmers friend (<i>Bidens spp.</i>).</p> <p>Coolatai Grass has been found near the reserve, and has been identified as a Key Threatening Process. Coolatai Grass has not been found in the reserve at present.</p>	<p>The impact of introduced species on native species and neighbouring lands is minimised.</p>	<ul style="list-style-type: none"> • Continue with and expand programs to control introduced plant and animal species as per the Northern Plains Region Pest Management Strategy. Control programs will be conducted in cooperation with neighbours where appropriate. • Pigs and foxes are listed as a high priority in the Northern Plains Region Pest Management Strategy. They are control using aerial and ground shooting, 1080 baiting and trapping. • Prickly Pear, Bathurst Burr, and Noogoora Burr are listed as a high priority under the Northern Plains Region Pest Management Strategy. These weeds are present only in a small section of the Reserve, which was once cultivated, and also around some boundaries. It is unlikely that these species will spread within the Reserve, as they have not already done so and the natural vegetation, particularly SEVT, is very thick. However, regular monitoring will occur. • Regular monitoring of Coolatai Grass in and around the reserve and in collaboration with the North West County Council and Rural Lands Protection Boards. • Survey and map the location of weed species both on the Reserve and adjacent to the Reserve, to maximise efficiency of control measures. • Monitor for new weed infestations, especially noxious weeds, and other identified weed threats. Treat any outbreaks based on established priorities. 	<p>High</p> <p>High</p> <p>Medium</p> <p>High</p> <p>High</p> <p>Medium</p>
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<p>Fire Management</p> <p>There are no known records of wildfire or prescribed burns in the Reserve.</p> <p>Research conducted in similar areas indicates fire events would lead to the contraction of the Semi-evergreen Vine Thicket community. High conservation value needs to be considered in planning fire management strategies.</p> <p>There has been no research into the vegetation response to fire in Planchonella Nature Reserve.</p>	<p>Persons and property are protected from bushfire.</p> <p>Fire regimes are appropriate for conservation of plant and animal communities, especially SEVT.</p> <p>Cultural features are protected from damage by fire.</p>	<ul style="list-style-type: none"> • Prepare fire management guidelines for the Reserve that detail life, property and natural (especially SEVT) and cultural resource protection strategies. • Participate in Cunningham Zone Bush Fire Management Committee. Maintain coordination and cooperation with Rural Fire Service brigades, Council, Fire Control Officers and neighbours with regard to fuel management and fire suppression. • Encourage further research into the ecological effects of fire in these vegetation communities. Results of research will be used when reviewing fire management guidelines for the Reserve. 	<p>High</p> <p>High</p> <p>High</p>
<p>Cultural heritage</p> <p>There are no known sites of historic or Aboriginal significance located within the Reserve.</p>	<p>Cultural features are conserved and managed in accordance with their significance.</p>	<ul style="list-style-type: none"> • Precede all work by a check for cultural or Aboriginal features. • Consult and involve the Toomelah Local Aboriginal Land Council in the management of Aboriginal sites, places and values, if any sites are discovered. 	<p>High</p> <p>High</p>
<p>Research</p> <p>Scientific study is needed to improve understanding of the Reserve's natural and cultural heritage, the processes that affect them and the requirements for management of particular species.</p> <p>Priority will be given to the research which will assist in management of the Endangered Ecological Community SEVT, and to vulnerable fauna species.</p>	<p>Research enhances the management information base and has minimal environmental impact.</p>	<ul style="list-style-type: none"> • Undertake and encourage research to improve knowledge and management of natural and cultural heritage. • Prepare a prospectus to encourage and guide research by educational organisations and others in the Reserve. 	<p>Medium</p> <p>Low</p>

<p>Visitor use</p> <p>Promotion of community understanding and appreciation of the conservation values of the Reserve will be important for minimising damaging activities and maximising conservation outcomes.</p> <p>As the Reserve is relatively small and contains a number of threatened species, any use of the Reserve will be carefully managed and monitored to avoid impacts.</p> <p>No public roads access the Reserve.</p> <p>Visitor access will be restricted to NPWS staff special interest groups, research personnel and educational groups.</p>	<p>The local community is aware of the significance of the area and of management programs.</p> <p>Visitor use is ecologically sustainable.</p>	<ul style="list-style-type: none"> Promote an awareness of the conservation value of the Reserve through liaison with the local community and through provision of appropriate information. Maintain contact with neighbours and the community regarding management activities and visitation within the Reserve. No visitor facilities will be constructed as the Reserve is of such limited size and further fragmentation is to be avoided. No camping or fires will be permitted. Permit educational and special interest visits subject to prior consent from NPWS (with limits on numbers and frequency of visits and other conditions to minimise impacts). Monitor levels and impacts of use. 	<p>Medium</p> <p>High</p> <p>Low</p> <p>Medium</p>
<p>Management operations</p> <p>A limited network of tracks and trails exist to facilitate access for management activities (see map).</p> <p>The reserve boundary is fenced to a stock-proof standard.</p>	<p>Management facilities adequately serve management needs and have acceptable impact.</p>	<ul style="list-style-type: none"> Maintain trails shown on the map for management purposes. Lock the gate into the Reserve. Undertake maintenance on the Coolatai and Yallaroi Road section of the fence line. Maintain other boundary fences in association with neighbours and National Parks and Wildlife Service policy. The condition of the fences will be monitored. 	<p>Medium</p> <p>High</p> <p>High</p> <p>High</p>