



Aberbaldie Nature Reserve

Plan of Management



ABERBALDIE NATURE RESERVE PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

Part of the Department of Environment, Climate Change and Water

February, 2011

This plan of management was adopted by the Minister for Clima	te
Change and the Environment on 15 th February 2011.	

Acknowledgements

The NPWS acknowledges that this Aberbaldie Nature Reserve is in the traditional country of the Anaiwan Aboriginal people.

This plan of management is based on a draft plan prepared by staff of the Northern Tablelands Region of the NSW National Parks and Wildlife Service (NPWS), part of the Department of Environment, Climate Change and Water.

Valuable information and comments were provided by botanists Dr. John T Hunter and Dr Lachlann Copeland and wildlife ecologist Philip Spark.

Cover photograph: SPOT 5 Image 2005, Nundle.ecw.

For additional information or any inquiries about this reserve or this plan of management, contact the NPWS Walcha Area Office, 188W North St Walcha or by telephone on 02 6777 4700.

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FOREWORD

Aberbaldie Nature Reserve is located on the Northern Tablelands of NSW, approximately 19 kilometres south west of Walcha. The reserve is 284 hectares in size was reserved in 2003.

Aberbaldie Nature Reserve contains important habitat for an array of forest species in a relatively cleared landscape. The vegetation communities that are present in the reserve are in unique combinations that are not represented elsewhere in the reserve system. Three threatened animal species, including the vulnerable Eastern False Pipistrelle Bat, and two bird species listed under international agreements have been recorded in 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 draft plan of management for Aberbaldie Nature Reserve was placed on public exhibition from 28th May until 30th August 2010.

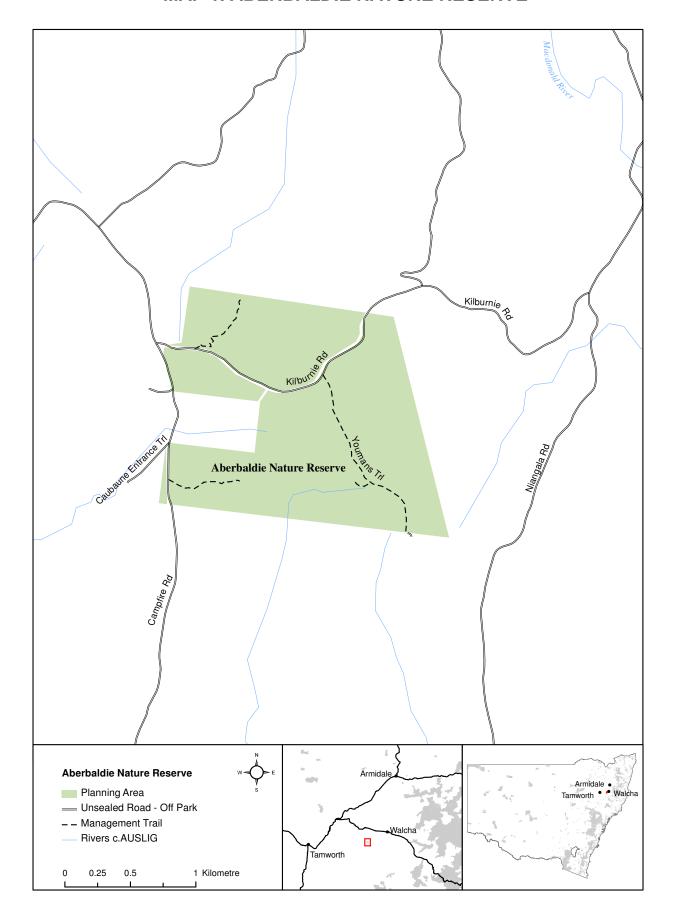
This plan contains a number of actions to achieve the State Plan priority to "Protect our native vegetation, biodiversity, land, rivers and coastal waterways", including continuation of existing pest and weed control programs, implementation of the Reserve Fire Management Strategy, and encouragement of further research into the ecological effects of fire in the reserve.

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

Frank Sartor MP

Minister for Climate Change and the Environment

MAP 1. ABERBALDIE NATURE RESERVE



1. LOCATION, GAZETTAL AND REGIONAL CONTEXT

Aberbaldie Nature Reserve (herein referred to as the Reserve) is located on the Northern Tablelands of NSW, approximately 19 kilometres south west of Walcha township, within the Walcha Council area. The 284 hectare Reserve was gazetted in March 2003 under the *National Parks and Wildlife Act 1974* (NPW Act).

Information from original survey maps indicate the area was set aside as a Crown Forest Reserve from at least 1880. The name Aberbaldie is the local parish name and the name of the original grazing property that covered much of the area.

The Reserve is a forested island surrounded by mostly cleared grazing lands under freehold or Crown lease. The nearest other reserve, Oxley Wild Rivers National Park, is approximately 32 kilometres east. The Reserve remains in a natural and relatively undisturbed condition having only been subjected to low level logging, firewood collection and low level grazing prior to gazettal. Kilburnie Road, a public road, dissects the Reserve east to west.

The Reserve, whilst small in size, is considered a significant refuge for native plant and animal communities in the southern part of the New England Tableland Bioregion. The Reserve protects very rare and threatened plant assemblages that are not represented elsewhere in the reserve system (Hunter 2005 & Copeland 2007).

The Reserve lies within the Tamworth Local Aboriginal Land Council area and adjoins the boundary of the Amaroo Local Aboriginal Land Council area (Walcha). The Reserve is within the traditional area of the Anaiwan people.

2. MANAGEMENT CONTEXT

2.1. LEGISLATIVE AND POLICY FRAMEWORK

The management of nature reserves in NSW is in the context of the legislative and policy framework, primarily the *National Parks and Wildlife Act 1974* (NPWS Act), the NPW Regulation, the *Threatened Species Conservation Act 1995* (TSC Act), the *Wilderness Act 1987* and the policies of the National Parks and Wildlife Service (NPWS).

Other legislation, international agreements and charters may also apply to management of the area. In particular, the *Environmental Planning and Assessment Act 1979* (EPA Act) may require the assessment and mitigation of the environmental impacts of works proposed in this plan. The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) also applies in relation to actions that may impact on threatened species listed under that Act.

A plan of management is a statutory document under the NPW Act. Once the Minister has adopted a plan, no operations may be undertaken within Aberbaldie

Nature Reserve except in accordance with this plan. This plan will also apply to any future additions to Aberbaldie Nature Reserve. Should operations be proposed for Aberbaldie Nature Reserve or any additions that are not in accordance with this plan and legislation, an amendment to this plan will be required.

2.2. 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 (section 30J), 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 the provision of recreation as a management principle.

2.3. STATEMENT OF SIGNIFICANCE

Aberbaldie Nature Reserve is considered to be of significance for its:

- Landscape/Catchment Values: The Reserve is situated on the Great Dividing Range and protects the headwaters of creek systems which form part of the Namoi River catchment.
- Biological Values: The Reserve has not been cleared for logging or agriculture and it has not been affected by high frequency burning in the last 150 years. The Reserve represents a good example of tall open tablelands forest with a structurally diverse understorey and contains at least 16 plant and animal species listed as threatened, including an abundance of the vulnerable Eastern False Pipistrelle Bat. The Reserve is also an important island habitat for an array of forest species in a relatively cleared landscape.
- Research/Education Values: Given that the Reserve is relatively undisturbed by clearing, pest species or fire it has the potential to be an important reference area for ecology and conservation research.

2.4. SPECIFIC MANAGEMENT DIRECTIONS

In addition to the general principles for the management of nature reserves (refer to Section 2.2), the following specific management directions apply to the management of Aberbaldie Nature Reserve:

- Protect threatened species and old growth forest ecosystems;
- Improve habitat corridor linkages with this reserve and the surrounding landscape;
- Encourage research into the ecological and conservation significance of this relatively undisturbed tablelands forest ecosystem;
- Control introduced plant and animal species in accordance with the Regional Pest Management Strategy; and
- Implement the Reserve Fire Management Strategy.

3. VALUES

The location, landforms and plant and animal communities of an area have determined how it has been used and valued. 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. For reasons of clarity and document usefulness, various aspects of natural heritage, cultural heritage, threats and on-going use are dealt with individually, but their interrelationships are recognised.

The Reserve is very important in terms of its placement in the landscape. The Reserve is at high altitude and longitudinally central on the Northern Tablelands (Hunter, 2005). Very little protected lands cover the high altitude areas of the central parts of the Northern Tablelands as much of these areas are subject to agricultural activity.

3.1. GEOLOGY, LANDSCAPE AND HYDROLOGY

The Reserve is 11 kilometres west of the Great Dividing Range within the Namoi River catchment. The Reserve divides two Namoi River sub-catchments, the Macdonald River draining to the east and north of the Reserve, and the Cockburn River to the west.

The Reserve is situated on top of the landform known as the Moonbi Range. The Reserve is generally undulating, the relief ranging from 1080 metres to 1172 metres above sea level. Most of the Reserve lies on a geological occurrence known as the Kilburnie Adamellite, a granitic rock associated with the New England Batholith. This batholith formed during a major period of plutonism 265-220 million years ago (Barnes *et al.*, 1988). The Reserve is characterised by granite boulders and tors. A small area of clastic sediments occurs in the north-east area of the Reserve.

Soils within the Reserve are generally granitic in origin and would be described as sandy loams of varying colouration.

The Reserve is wholly within the New England Tablelands Bioregion.

3.2. NATIVE PLANTS

A total of 180 vascular plant species have been recorded in the Reserve, of which 11 are eucalypts (Hunter, 2005; Copeland, 2007). Nine known species are considered of regional significance, six of which are eucalypts and one of which is listed as vulnerable under the TSC Act and the EPBC Act. Table 1 below lists the most dominant native species in the Reserve, whilst Table 2 lists the rare, threatened or regionally uncommon species.

Table 1: List of the most dominant native species (Hunter, 2005).

Common name	Scientific name
Bushy Hedgehog Grass	Echinopogon caespitosus
New England Blackbutt	Eucalyptus campanulata
Mountain Gum	Eucalyptus dalrympleana
Youman's Stringybark	Eucalyptus youmanii
Blady Grass	Imperata cylindrica
Lance-leaf Beard-heath	Leucopogon lanceolatus
Spiny-headed Matt-rush	Lomandra longifolia
Matt-rush	Lomandra sp. aff. cylindrica
Urn Heath	Melichrus urceolatus
Weeping Grass	Microlaena stipoides
Sticky Daisy Bush	Olearia viscidula
Snow Grass	Poa sieberiana
Bracken Fern	Pteridium esculentum
Groundsel	Senecio prenanthoides
Hairy Speedwell	Veronica calycina

Table 2: Rare, threatened and regionally uncommon plant species (Hunter, 2005; Copeland, 2007).

Common name	Scientific name	Status
Orchid	Diplodium sp. aff. reflexum	Undescribed
Bendemeer White Gum	Eucalyptus elliptica	Regionally Rare
Apple Box	Eucalyptus malacoxylon	Regionally Rare
Narrow-leaved Black Peppermint	Eucalyptus nicholii	Vulnerable*#
Black Sally	Eucalyptus stellulata	Regionally Disjunct
Williams Stringybark	Eucalyptus williamsiana	Regionally Rare
Youman's Stringybark	Eucalyptus youmanii	Regionally Rare
Niggerheads	Enneapogon nigricans	Regionally Infrequent
Bearded Heath	Leucopogon sp. aff. fraseri	Undescribed

^{*} Status under TSC Act

The Reserve is at a cross-over of floristic elements and includes some species that are near their northern limits, others that are near their southern limits, and also a

[#] Denotes species nationally threatened under the EPBC Act.

number of species that have their most common occurrence within or just west of the Reserve.

The six eucalypt species considered to be of conservation significance fall into three general groups: *Eucalyptus elliptica* and *E. malacoxylon* are local endemics having their distribution largely between Nundle and Bendemeer; *E. nicholii* and *E. youmanii* are two species that have their main distribution at high altitudes within the central parts of the New England region from Glen Innes to Walcha; and *E. williamsiana* and *E. stellulata* are primarily species that occur throughout the high altitude areas along the more eastern parts of the New England region from Tenterfield south to the Walcha area (Hunter, 2005).

In addition to the individual species, the vegetation communities present in the Reserve are of conservation significance as they are in unique combinations that are not known to be reserved elsewhere (Hunter, 2005). Benson & Ashby (2000) consider that less than 15% of the original occurrence of these types of communities remain in the New England, and thus they should be considered to be endangered and further impacts to the Reserve should not occur.

3.3. NATIVE ANIMALS

The Reserve contains 5 animal species listed under the TSC Act and EPBC Act (see Table 3). This includes the two migratory species that are listed under international agreements and hence covered by the EPBC Act.

Table 3: Significant animal species recorded in the Reserve (Spark, 2008)

Common name	Scientific name	Status
Eastern False Pipistrelle	Falsistrellus tasmaniensis	Vulnerable*
Diamond Firetail	Stagonopleura guttata	Vulnerable*
Koala	Phascolarctos cinereus	Vulnerable*
Satin Flycatcher	Myiagra cyanoleuca	Migratory Species#
White-throated Needletail	Hirundapus caudacutus	Migratory Species#

^{*} Status under TSC Act

A recent survey recorded five frog species, nine reptile species, 54 bird species and 17 native mammal species (including 9 bat species) in the Reserve. The Eastern False Pipistrelle (*Falsistrellus tasmaniensis*), listed as Vulnerable under TSC Act, was the most common bat trapped during the survey (Spark, 2008).

Several other significant species have been recorded in the Reserve. These include the Musk Lorikeet (*Glossopsitta concinna*), Scarlet Robin (*Petroica multicolor*), Crested Shrike-tit (*Falcunculus frontatus*), Plum-headed Finch (*Neochmia modesta*) and White-striped Freetail Bat (*Tadarida australis*).

[#] Denotes migratory species listed under the EPBC Act.

Significant fauna that have been recorded in the surrounding area and are likely to occur in the Reserve include the Spotted-tailed Quoll (*Dasyurus maculatus*), Powerful Owl (*Ninox strenua*), Squirrel Glider (*Petaurus norfolcensis*), Large-eared Pied Bat (*Chalinolobus dwyeri*), Large Bent-wing Bat (*Miniopterus schreibersii*), Greater broad-nosed Bat (*Scoteanax rueppellii*), Grey-headed Flying-fox (*Pteropus poliocephalus*), Yellow-bellied Sheathtail Bat (*Saccolaimus flaviventris*), Border Thick-tailed Gecko (*Underwoodisaurus sphyrurus*), and Black-chinned Honeyeater (*Melithreptus gularis gularis*) (Spark, 2008).

3.4. ABORIGINAL HERITAGE

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

The Reserve lies within the area of the Tamworth Local Aboriginal Land Council and near the boundary of the Amaroo Local Aboriginal Land Council area (Walcha). The Reserve is in the traditional country of the Anaiwan people, who occupied the southern New England Tableland area.

Whilst the Anaiwan is the most noted tribe occupying the southern New England Tablelands, another distinct subgroup of the Anaiwan people is recorded as having occupied the Ingleba and Aberbaldie parish areas and surrounds. According to stories handed down by early settlers and Aboriginal descendants, this group was colloquially referred to as the Ingleba Tribe or Yarry Tribe. The name Yarry was derived from the name of the chief of this Aboriginal group who lived during the times of first white settlement at Aberbaldie and Ingleba through to the early 20th century (Jamieson, 1987). Aboriginal people continued to live at what became known as the Ingleba Aboriginal Reserve, about 10 kilometres south of Aberbaldie Nature Reserve next to the Macdonald River, well into the 20th century (Cohen & Somerville, 1990) and this area is still owned by the Amaroo Local Aboriginal Land Council.

There are no known Aboriginal sites in the Reserve; however, no formal site surveys have been undertaken.

3.5. HISTORIC HERITAGE

The Reserve was a declared Forest Reserve by 1880, according to early surveyed parish maps held by the University of New England Heritage Centre. Parish maps also show it was part of the Sandon Gold Field proclaimed in 1907. Before gazettal in 2003 the Reserve was Crown land, notified in 1987 as R110008 for 'Environmental Protection'.

Although the land was used for small scale timber getting activities and intermittent stock grazing under various permissive occupancies (leases), evidence suggests that grazing and local timber getting were at relatively low levels. Discussions with neighbours and former leaseholders indicate that no other significant activities occurred within the Reserve.

The only known significant evidence of past land use is the remains of an old wooden morticed fence which dissects the Reserve. The purpose and significance of this fence is not known.

3.6. VISITOR USE, EDUCATION AND RESEARCH

Current use of the Reserve is very limited. The Reserve has never been a formal site of recreation or scientific use and there are no visitor facilities. Kilburnie Road and a small section of Campfire Rd are the only public roads in the Reserve.

Public use of the Reserve, including for research purposes, is likely to remain very limited because of the small size of the Reserve and its reasonably remote location.

There are no current research or monitoring projects in the Reserve, however, given the rare vegetation communities present, and the limited amount of disturbance such as fire, there is potential for further research in ecology and conservation.

4. ISSUES

4.1. WEEDS AND PEST ANIMALS

Introduced plants and animals are currently a minor threat to the Reserve. Foxes, cats, rabbits and feral pigs have been recorded in the Reserve in small numbers. There are ten known introduced plants in the Reserve (refer to Table 4). They mainly occur along the boundary of the Reserve. While the current conservation threat from these species is minimal, there is potential that other more invasive species, such as Coolatai Grass (*Hyparrhenia hirta*), could spread along road verges in the Reserve if monitoring and weed control works are not undertaken.

Table 4. Introduced Plants recorded in the Reserve (Hunter, 2005; Copeland, 2007).

Common name	Scientific name
Sweet Vernal Grass	Anthoxanthum odoratum
Spear Thistle	Cirsium vulgare
Tall Fleabane	Conyza sumatrensis
Flaxleaf fleabane	Conyza bonariensis
Yorkshire Fog	Holcus lanatus
Smooth Catsear	Hypochaeris glabra

Catsear	Hypochaeris radicata
Slender Pigeon Grass	Setaria gracilis
Clover	Trifolium sp.
Aaron's Rod	Verbascum thapsus subsp. thapsus

4.2. FIRE

The primary fire management objectives of the NPWS are to protect life and property and community assets from the adverse impacts of fire, whilst managing fire regimes to maintain and protect biodiversity and cultural heritage.

Fire is a natural feature of many environments and is essential for the survival of some plant communities. 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 TSC Act.

Fire history in the Reserve is not well documented; however neighbours and onground evidence suggests that, apart from one small fire in the early 1970s, there have been no fires in the Reserve for several decades. This being the case, some ecological mosaic burning associated with research has been recommended to ascertain whether burning enhances biodiversity (Spark, 2008).

There are no assets within the Reserve, however there are private assets surrounding the Reserve, namely those associated with grazing enterprises such as fences, yards, farmhouses, and stock. A church with some historic value is located several kilometres north east of the Reserve next to the Kilburnie farmhouse.

A separate (map-based) fire management strategy (NPWS, 2006) has been prepared for the Reserve. The fire management strategy outlines the fire history of the Reserve, key assets within and adjoining the Reserve including sites of natural and cultural heritage value, fire management zones, and 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 New England Bush Fire Management Committee.

NPWS maintains cooperative arrangements with surrounding landowners and Rural Fire Service (RFS) brigades and is actively involved in the New England Bush Fire Management Committee. Cooperative arrangements include approaches to fuel management, support for neighbours fire management efforts and information sharing.

4.3. FIREWOOD COLLECTION, TIMBER HARVESTING AND RUBBISH DUMPING

Prior to declaration, the Reserve had been impacted by low to moderate levels of illegal activities including firewood collection, timber harvesting and rubbish dumping. The use of appropriate signage and education by the NPWS since declaration has largely ended these activities.

4.4. ISOLATION AND FRAGMENTATION

The area surrounding the Reserve has been extensively cleared, which has resulted in a high loss of biodiversity and fragmentation of habitat in the region. Long term conservation of biodiversity depends upon the protection, enhancement and connection of remaining habitat across the landscape, incorporating vegetation remnants on both public and private lands. Nearby vegetated areas contribute to the habitat values of the Reserve and provide ecological corridors to other vegetated areas. Maintaining the integrity of the remaining habitat within the Reserve and, where possible, linking this to adjacent areas of vegetation to facilitate wildlife corridors is important in ensuring long term viability of the Reserve's biological values.

4.5. CLIMATE CHANGE

Climate change has been listed as a key threatening process under the TSC Act. Projections of future changes in climate for NSW include higher temperatures, increasing sea levels and water temperatures, elevated CO₂, more intense but possibly reduced annual average rainfall, increased temperature extremes and higher evaporative demand. These changes are likely to lead to greater intensity and frequency of fires, more severe droughts, reduced river runoff and water availability, regional flooding, increased erosion and ocean acidification.

Climate change may significantly affect biodiversity by changing population size and distribution of species, modifying species composition, and altering the geographical extent of habitats and ecosystems. The potential impact of climate change is difficult to assess since it depends on the compounding effects of other pressures, particularly barriers to migration and pressure from feral animals. Species most at risk are those unable to migrate or adapt, particularly those with small population sizes or with slow growth rates.

Programs to reduce the pressures arising from other threats, such as habitat fragmentation, invasive species, bushfires, pollution and urban expansion, will help reduce the severity of the effects of climate change.

5. REFERENCES

- Barnes, R.G, Brown, R.E., Brownlow, J.W., Gilligan, L.B., Krynen, J. and Willis, I.L., (1988). A review of the mineral deposits of the New England Orogen in New South Wales. Pp. 211-227. In J.D. Kleeman (ed.) *New England Orogen Tectonics and Metallogenisis*. (University of New England: Armidale).
- Benson, J.S. & Ashby, E. (2000). Vegetation of the Guyra 1:100 000 Map Sheet. *Cunninghamia* 6: 747-872.
- Cohen, P. & Somerville, M. (1990). Ingelba and the Five Black Matriarchs. Allen and Unwin.
- Copeland, L. (2007). Additions to, and further notes on, the plant species list for Aberbaldie Nature Reserve.
- Hunter, Dr J.T. (2005). Vegetation and Floristics of Aberbaldie Nature Reserve. A Report to the New South Wales National Parks and Wildlife Service.
- Jamieson, D. C. (1987). Tales At Old Inglebah. Peel Valley Printery.
- National Parks and Wildlife Service (2006). *Northern Tablelands Region Aberbaldie Nature Reserve Fire Management Strategy*. Department of Environment and Conservation.
- National Parks and Wildlife Service (2007). Northern Tablelands Region Pest Management Strategy 2008-2011. Department of Environment and Climate Change.
- Spark, P. (2008). Fauna Survey Report for Aberbaldie Nature Reserve.

6. IMPLEMENTATION

Current Situation	Desired Outcomes	Management Response	Priority*
6.1. On-Park Ecological Conservation		6.1.1. Continue existing fire, pest and weed	High
At least nine plant species are considered of regional significance, six of which are eucalypts and one of which is listed as vulnerable on the state (TSC Act) and federal	Native plant and animal species and communities are conserved.	management to reduce the impact on threatened species and their habitat and increase the Reserve's ability to cope with future disturbances, including climate change.	Ongoing
(EPBC Act) lists. Most of the dominant eucalypt species are rare and in unique combinations that are not known to be reserved elsewhere (Hunter, 2005).	Landscape and catchment values are protected.	6.1.2. Work with neighbours, local Landcare groups and the local Catchment Management Authority to encourage conservation of remnant native vegetation in the vicinity of the Reserve.	Medium Ongoing
The Reserve protects the habitat of 85 known native animal species including the vulnerable Koala and the Eastern False Pipistrelle Bat.	The effects of climate change on natural systems are reduced.	6.1.3. Undertake and encourage research to improve knowledge and management of natural and cultural heritage.	Low Ongoing
The Reserve is very small and isolated and will need corridors and other forms of connectedness to other remnants if its longterm viability is to be assured (Hunter, 2005).		6.1.4. Implement relevant strategies in the Threatened Species Priority Action Statement (PAS) and recovery plans for threatened species present in the Reserve as resources permit.	Medium Ongoing
Further research will improve understanding of the Reserve's natural heritage, the processes that affect them and the requirements for management of particular species.			
Climate change has been identified as a key threatening process under the TSC Act. Climate change may significantly affect biodiversity by changing the population size and distribution of species, modifying species composition, and altering the geological extent of habitats and ecosystems.			

Current Situation	Desired Outcomes	Management Response	Priority*
6.2. Cultural Heritage			
No Aboriginal or historic heritage surveys have been undertaken in the Reserve.	Aboriginal and historic values are	6.2.1. Undertake an archaeological survey and cultural assessment of the Reserve as resources permit.	Low Ongoing
Relics of an old wooden morticed fence dissect the Reserve, however the heritage significance of this is unknown.	appropriately conserved and managed.	6.2.2. Undertake an archaeological survey and cultural assessment prior to all works with the potential to impact on Aboriginal or historic sites and places.	High Ongoing
	cultural values of the Reserve is improved.	6.2.3. Record the wooden fence and any other Aboriginal and historical sites found in the Reserve, assess for heritage significance and retain in situ.	High Ongoing
		6.2.4. Consult and involve the Amaroo and Tamworth Local Aboriginal Land Council, and other relevant Aboriginal community organisations in the management of any Aboriginal sites, places and values found in the Reserve, including interpretation of places or values.	High Ongoing

Current Situation	Desired Outcomes	Management Response	Priority*
6.3. Visitor Use and Research			
Current visitor use is very low. There are no visitor facilities within the Reserve and none are proposed.	Visitor use and research is appropriate and	6.3.1 Promote use of the Reserve for scientific and educational purposes.	Low Ongoing
The Reserve is most suited for scientific and educational use, however passive and nature based activities such as bushwalking, bird watching, and photography may also occur.	ecologicaliy sustainable.	o.3.z. Erect signs indicating that camping, lifes and unauthorised vehicle access are not permitted in the Reserve.	Medium
Camping, fires and vehicles have the potential to damage the important vegetation communities and habitat values of the Reserve.			
6.4. Community Programs and Education			
There are no community programs operating within the Reserve, nor is there any interpretive information. Due to its low use, no on-site interpretation is considered necessary.	Neighbours support conservation of native vegetation near the Reserve.	6.4.1 Liaise with neighbours to encourage the retention and appropriate management of key habitats and corridors adjacent to the Reserve.	High Ongoing
The retention of habitat corridors and landscape connectivity would increase the viability of the Reserve.			

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6.5. Weeds and Pest Animals Foxes and feral pigs are known in the Reserve	Introduced plants and	6.5.1. Manage introduced species in accordance with	High
in small numbers.	animals are controlled and where	the Regional Pest Management Strategy.	Ongoing
Ten introduced plants have been recorded in the Reserve.	Possible ellilliated. Pest control programs are	6.5.2. Seek the cooperation of heighbours, walcha Council, and the New England Weeds Authority in implementing weed and pest control programs.	High Ongoing
A Regional Pest Management Strategy (NPWS, 2007) has been prepared which lists priorities for weed and pest animal control as	undertaken where appropriate in consultation with	such as the local Livestock Health and Pest Authority, Catchment Management Authorities and neighbours.	
well as control methods.	neighbours.	6.5.3. Undertake regular monitoring of road edges in the Reserve and of Reserve boundaries for invasive species.	High Ongoing
6.6. Fire Management			-
A Reserve Fire Management Strategy (NPWS, 2006) has been prepared for Aberbaldie	Life, property and natural values are protected	6.6.1. Implement the Reserve Fire Management Strategy.	High Ongoing
Nature Reserve.	from fire.	6.6.2. Participate in the New England Bush Fire	High
The Reserve has not been burnt since the early 1970s.	Fire regimes are appropriate for	Management Committee, Maintain cooperative arrangements with local RFS brigades and surrounding landowners in regard to fuel management	Ongoing
The Reserve has been zoned as a Land management Zone (LMZ) because it is not		and fire suppression.	
adjacent to built assets which would be exposed to a high level of bushfire risk and	annial commutes and protect natural and cultural heritage	6.6.3. Encourage further research into the ecological effects of fire in the Reserve. Determine if and/or	Medium
does not have a history of bushfire ignitions. The primary fire management objectives for a	values.	where an ecological burn is required. Any mosaic burning that may be implemented in the future would	
LMZ are to conserve biodiversity and protect cultural heritage.		gained during an initial small burn.	

6.7. Infrastructure and Maintenance			
The Reserve contains a number of trails (refer to Map 1) which are required for management purposes. These trails are occasionally used for other purposes which have negative	Management facilities and operations adequately serve management needs	Management facilities 6.7.1. Maintain the management trails shown on Map 1 and operations adequately serve all other tracks to reduce negative impacts such as erosion and weed invasion.	High Ongoing
The Reserve boundary is fenced to a stock-	and nave minimal impact.	6.7.2. Gate &/or signpost management trails as necessary to restrict unauthorised access.	Medium
pidol staridard.		6.7.3. In conjunction with neighbours, maintain boundary fences to exclude stock.	Medium Ongoing

* **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.

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.