

WAMBOOL NATURE RESERVE

PLAN OF MANAGEMENT

National Parks and Wildlife Service

Part of the Department of Environment and Climate Change NSW

October 2007

This plan of management was adopted by the Minister for Climate Change, Environment and Water on 18th October 2007.

Acknowledgments

This plan of management was prepared by staff from the Western Rivers Region of the National Parks and Wildlife Service, with the assistance of members of the Western Rivers Region Advisory Committee. Valuable information and comments that assisted the compilation of this draft were provided by NPWS specialists and park neighbours.

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FOREWORD

Wambool Nature Reserve is located approximately 20 kilometres east of Bathurst within the Central Tablelands of New South Wales. The nature reserve was established on 12 June 1987 and is 194 hectares in area. A large part of the reserve was originally part of the Wambool Common.

The reserve occurs within the South Eastern Highlands Bioregion and is located within the Central West Catchment. The area is characterised by undulating slopes, broad gullies and low ridges. A total of 226 native plants have been recorded in the reserve.

The woodlands in the reserve generally have a poor conservation status in NSW and are considered to be vulnerable and inadequately conserved. The low shrub density of these woodlands allows this niche to be filled by terrestrial orchids. The reserve is considered to be an orchid “hotspot”, with 48 species (17 genera) of orchids being recorded.

Wambool Nature Reserve is located near the major Bathurst goldfields and was subject to limited gold mining activity, most likely during the 1880-1890 period. Eight historic sites have been recorded within Wambool Nature Reserve consisting of one mining complex, five mines and two modified survey trees

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 an area will be managed in the years ahead.

A draft plan of management for Wambool Nature Reserve was placed on public exhibition from 16th December 2005 until 27th March 2006. The submissions received were carefully considered before adopting this plan.

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

Phil Koperberg
Minister for Climate Change, Environment and Water

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1. MANAGEMENT CONTEXT

1.1 LEGISLATIVE AND POLICY FRAMEWORK

Wambool Nature Reserve is managed under a legislative and policy framework that is the *National Parks and Wildlife Act 1974* (NPW Act), the National Parks and Wildlife Regulation, the *Threatened Species Conservation Act 1995* (TSC Act) and the policies of the National Parks and Wildlife Service (NPWS). Section 72AA of the NPW Act lists the matters to be considered in the preparation of a plan of management. The policies arise from the legislative background and internationally accepted principles of park management. They relate to nature conservation, Aboriginal and historic heritage conservation, recreation, commercial use, research and communication.

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

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 Wambool Nature Reserve except in accordance with the plan. The plan will also apply to any future additions to Wambool Nature Reserve. Where management strategies or works are proposed for Wambool Nature Reserve or any additions that are not consistent with the 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 (Section 30J NPW Act).

Wambool Nature Reserve will be managed in accordance with the above purposes of reservation and the management principles identified in Section 30J of the Act, that is

- (a) the conservation of biodiversity, the maintenance of ecosystem function, the protection of geological and geomorphological features and natural phenomena;
- (b) the conservation of places, objects, features and landscapes of cultural value;
- (c) the promotion of public appreciation, enjoyment and understanding of the reserve's natural and cultural values and
- (d) the provision for appropriate research and monitoring.

In terms of management principles, nature reserves differ from national parks in that they do not have to provide for visitor use.

1.3 MANAGEMENT DIRECTIONS

Management priorities will be in line with protecting and preserving the biodiversity (flora and fauna) and the natural and cultural heritage values within the reserve as well as encouraging compatible nature conservation activities as part of scientific and educational programs.

Specific management objectives for Wambool Nature Reserve are to:

- Conserve native plant species and remnant vegetation communities within the reserve, including the 48 species (17 genera) of orchid.
- Conserve native animals that have been recorded in the reserve;
- Manage the Aboriginal heritage of the reserve in consultation with relevant Aboriginal stakeholders;
- Determine the status of historic heritage and manage these heritage values;
- Control and where possible eliminate noxious plants from the reserve in consultation with relevant organisation, authorities, stakeholders and neighbours;
- Control pest animals in the reserve in consultation and cooperation with relevant organisations, authorities, stakeholders and neighbours;
- Adopt appropriate fire management strategies and practices to protect the natural and cultural values of the reserve and prevent the spread of wildfires into and off the reserve;
- Maintain the existing closed access network of management trails extending them, where necessary, to provide linkages throughout the reserve;
- Rehabilitate the old Wambool Tip site;
- Encourage opportunities for scientific research and educational studies; and
- Adopt appropriate strategies to allow for low impact uses such as bushwalking in such a way that these activities do not negatively impact on the reserve's natural and cultural values.

RESERVE MAP

2. WAMBOOL NATURE RESERVE

2.1 LOCATION, GAZETTAL AND REGIONAL SETTING

Wambool Nature Reserve is located approximately 20km east of Bathurst within the Central Tablelands, and falls within the Bathurst Regional Council local government area. The reserve is accessible via Timber Ridge Road from both the Great Western Highway and the Brewongle/Tarana Road.

The name “Wambool” is derived from the local Wiradjuri language and means “meandering”. The same term is also used by the Wiradjuri people to refer to the Macquarie River.

The nature reserve was established on 12 June 1987 and is 194ha in area. A large part of the reserve was originally part of the Wambool Common. The reserve was established by joining three portions of land together within the Parish of Yetholme, County of Roxburgh. The lands consisted of a Trig Reserve TR 37767, Crown Reserve R88065 which was set aside for the purpose of the Preservation of Native Flora and Fauna and Reserve R91170 which was a notified Rubbish Depot (Wambool Tip). The tip was managed by Evans Shire Council as a waste depot from 1978 (when notified as a garbage tip) and later as a transfer station until its closure in August 1992.

The reserve occurs within the South Eastern Highlands Bioregion and is located within the Central West Catchment. The area is characterised by undulating slopes, broad gullies and low ridges. Several unnamed creeklines pass through the reserve (tributaries of Frying Pan Creek) which eventually reach the Fish River which then joins the Campbell’s River to form the Macquarie River.

The surrounding landscape is predominantly cleared pastoral and agricultural land of the Bathurst Plains used for grazing and cropping. However, to the north-east remnant native vegetation exists on both freehold and leasehold lands along Frying Pan Creek and further east that incorporate Mount Tennyson, Sunny Corner State Forest (Frappells Block) and Mount Tarana.

2.2 LANDSCAPE CONTEXT

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

Both Aboriginal and non-Aboriginal people place cultural values on natural areas, including aesthetic, social, spiritual, recreational and other values. Cultural values may be attached to the landscape as a whole or to individual components, for example to plant and animal species used by Aboriginal people. This plan of management aims to conserve both natural and cultural heritage values within the reserve as well as recognise and document the inter-relationships of these values with non-human threats and on-going use.

2.3 NATURAL AND CULTURAL HERITAGE

2.3.1 Climate, Landform, Geology and Soils

The climate of the reserve is influenced by its position within the eastern half of the Central Tablelands. The climate is characterised by warm to hot daytime temperatures in summer with mean daily maximum temperatures reaching 25°C in December /January while winters generally have mild daytime temperatures with cool to cold mornings often with frosts and snowfalls with mean daily minimum temperatures reaching 0°C in July. The area receives between 800mm – 1000mm of rainfall per annum with rainfall peaking between October and February, which is often associated with thunderstorms and high intensity falls.

The reserve is located on the edge of the Bathurst Plains, where the granites of the Bathurst Batholith give way to Silurian sediments. The nature reserve ranges in elevation from 800m along the reserve's eastern boundary to its highest point of 965m at the Yetholme Geodetic Trig Station in the northern part of the reserve.

Based on the Bathurst 1:250,000 Geological Series map, the geology within the reserve is dominated by late Silurian sediments from the Mumbil Group (east), in particular the Bells Creek Volcanics which consists of rhyolitic tuff and lava, quartz feldspar porphyry, tuffaceous sandstone and breccia. These sediments have been overlain by more recent Carboniferous geology which consists of a large expanse of granite known as the Bathurst Batholith. These granites are prominent in the northern section of the reserve

Based on the Bathurst 1:250,000 Soil Landscape Series, soils are derived from the underlying Silurian and Devonian sediments which, contain slate, shales, siltstone, tuff, greywacke and conglomerate. Surface soils are generally comprised of hardsetting sandy loam and sandy clay loams. Shallow skeletal sands and loams from the Burrendong group dominate the southern part of the reserve and are characterised by rolling to steep hills with relief between 40m - 200m and slopes between 21 – 50%. While the northern part of the reserve is dominated by soloths soils from the Mookerawa group which are characterised by rolling low hills to rolling hills with relief between 50m – 140m and slopes between 8 – 30%. These soils if cleared of vegetation are subject to severe sheet and gully erosion.

2.3.2 Native Plants

The woodlands in the reserve generally have a poor conservation status in NSW and are considered by Benson (1989) as being vulnerable and inadequately conserved. The open grassland and scattered trees of the Bathurst Plains and associated granite country is replaced by a woodland of stunted trees with a rich variety of flowering understorey shrubs and herbs. The low shrub density allows this niche to be filled by terrestrial orchids.

The vegetation within the nature reserve is very homogenous in structure, composition and distribution and consists of Open to Low Open Woodland communities. Two communities have been described for the reserve with the majority (70%) being dominated by Western (Inland) Scribbly Gum *Eucalyptus rossii* and Brittle Gum *E. mannifera*. The second community (27%) consists of vegetation dominated by Long Leaved Box (Bundy) *E. goniocalyx*, Scribbly Gum and Brittle Gum. The remaining 3% of the reserve consists of cleared and disturbed land that previously formed the Wambool Tip site.

Several other tree species also occur at low concentration in association with the dominant species. These include Blakely's Red Gum *E. blakelyi*, Tumbledown Red Gum *E. dealbata*, Yellow Box *E. melliodora* and Apple Box *E. bridgesiana*.

These woodlands generally have a poor conservation status and are considered by Benson (1989) as being vulnerable and inadequately conserved.

A total of 226 native plants have been recorded in the reserve (Atlas of NSW). These include one regionally restricted species, Snowgrass *Poa sieberiana* var *cyanophylla*, and one species considered to be at its geographical limit, Early Wattle *Acacia genistifolia*. In addition two other species of erect shrubs, Olax *Olax stricta* and *Poranthera corymbosa* are considered rare by Porteners and Harden (1990-93) within the reserve. The reserve is considered to be an orchid "hotspot" with 48 species (17 genera) of orchids being recorded. No species listed under the *Threatened Species Conservation Act 1995* have been recorded in the reserve.

2.3.3 Native Animals

The homogenous nature of the vegetation, when combined with the lack of fauna surveys, is likely to have contributed to the low number of recorded fauna species. To date only 29 native animals have been recorded in the reserve (Atlas of NSW) which consist of 16 species of birds including the Crimson Rosella *Platycercus elegans* and Striated Pardalote *Pardalotus striatus*, 9 species of mammals including the Ringtail Possum *Pseudocheirus peregrinus* and the Swamp Wallaby *Wallabia bicolor*, 2 species of reptiles and 2 species of amphibians. No species listed under the *Threatened Species Conservation Act* have been recorded in the reserve.

2.3.4 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.

Wambool Nature Reserve is within Wiradjuri country, and the reserve may have contributed to the social, economic and ceremonial life of the Wiradjuri people. Evidence of Aboriginal occupation and use is likely especially given the reserve's proximity to permanent water sources such as the Fish River as well as Eusdale Creek and Frying Pan Creek. However, to date no Aboriginal sites have been recorded within Wambool Nature Reserve.

2.3.5 Historic Heritage

Wambool Nature Reserve is located near the major Bathurst goldfields (Sofala, Hill End and the Turon River), and was subject to limited gold mining activity, most likely during the 1880-1890 period. Evidence of this past use includes mine shafts and adits, excavated depressions and trenches, exposed pit props and mullock heaps. There is also evidence that timber has been removed from the reserve, which may have been associated with mining activity. The mining complex occupies a small area in the south western corner of the reserve adjacent to Timber Ridge Road. Eight historic sites have been recorded within Wambool Nature Reserve consisting of one mining complex, five mines and two modified survey trees.

2.4 PUBLIC USE

Access to the reserve can be gained by travelling east from Bathurst along the Great Western Highway and then south along Timber Ridge Road. The reserve is also accessible by travelling south-east from Bathurst along the O'Connell Road then via the Brewongle/Tarana Road then along Timber Ridge Road. The trails within the reserve are for management purposes only and are not available for public vehicle access.

Well before the gazettal of the nature reserve in 1987, Wambool Nature Reserve was extensively used by tertiary institutions, in particular Mitchell College of Advanced Education (now Charles Sturt University) as a core study and research area as part of their environmental curriculum. Students primarily utilised the reserve to survey native flora and fauna as well as studying geology, geography, lithology and soils. However, following the transfer of the environmental courses to another campus, the reserve is no longer used by CSU for such purposes. Occasionally, local secondary (high) schools have been known to utilise the area for nature study and the reserve receives annual and irregular visits from the Bathurst Garden Club, TAFE colleges and other members of the community who have an interest in the reserve's unique flora.

Wambool Nature Reserve is infrequently used for walking by small groups, generally between 1-5 individuals, who use the existing management trail network. Given the low use of the reserve for walking it is neither practical nor desirable to construct and maintain walking tracks within the reserve. The low level of recreational use of the reserve can be attributed to the reserve's proximity to other parks with established visitor facilities such as the Evans Crown Nature Reserve, Blue Mountains National Park and Kanangra Boyd National Park that provide extensive recreational opportunities for walking. These parks also provide opportunities for camping which is not permitted in Wambool Nature Reserve.

2.5 THREATS TO RESERVE VALUES

2.5.1 Introduced Plants

There are a number of introduced plant species occurring within the reserve. The species of most concern are St Johns Wort *Hypericum perforatum*, Serrated Tussock *Nassella trichotoma*, Blackberry *Rubus fruticosus* and Sweet Briar *Rosa rubiginosa*. The invasive nature of these plants (that are listed as noxious under the Noxious Weed Act for Upper Macquarie County Council area), and the fact that they compete with native species requires their continued management and suppression.

Most weed species appear to be confined to locations that have been previously disturbed such as the Wambool Tip site, the north eastern corner of the reserve that adjoins cleared privately-owned lands and along the eastern boundary of the reserve where the tributaries of Frying Pan Creek have been exposed to erosion as well as grazing regimes on adjacent lands.

There is limited documented evidence of a weed program being conducted in the reserve until the late 1990's. If any works were conducted they would likely have focused on controlling the spread of weeds from the Wambool Tip site. During the last 5 years weed control programs have concentrated on dealing with isolated occurrences of noxious species or spraying weeds along boundary fences to control St Johns Wort and Serrated Tussock.

2.5.2 Introduced Animals

Only two introduced animals have been observed in the reserve, these being the fox and the feral pig, and until recently there was no evidence to suggest the need to implement any control programs to manage these animals.

In July 2003, and again in August 2005, damage to the reserve by feral pigs was noticed in the north eastern corner of the reserve and successful programs were conducted to remove these animals. This program can be activated as needed if pig activity occurs in a particular area.

2.5.3 Fire Management

The nature reserve has no documented wildfire or fuel reduction burn history, however, there are sections of the northern part of the reserve that appear to have been subject to fire within the last 20 years.

Based on research conducted by Keith (2002) regarding fire interval guidelines for broad vegetation types, the existing Open Woodland communities within the reserve can be broadly reclassified as Dry Sclerophyll Shrub Forests. Based on his research and the infrequency of fires, it has been suggested that the reserve is currently subject to a fire regime which may have an adverse impact on biodiversity. It has been recommended that a fire interval of 7 – 30 years between successive burns needs to be implemented to enhance the biodiversity and conservation values of the reserve.

A map based Reserve Fire Management Strategy in line with current standards will be prepared for the reserve. At present the reserve has been divided into seven Land Management Zones which range in size from 3ha to 59ha. The primary purpose for establishing these zones is to maximise the diminishing biodiversity and conservation values by implementing appropriate ecological based fire regimes. A secondary aim of the fuel reduction program is to provide protection for adjoining assets from any potential impact from a wildfire moving from the reserve.

There are four management trails (totalling 3.7kms). In early 2005 to allow for an improved access system and remove several “dead end” access routes, all trails were extended so that each trail now terminates at our boundary. These extensions (totalling 2.9kms) will remain in a dormant natural state and will not be incorporated into the existing management trail network for maintenance purposes. An additional “link trail” was also established between Geebung and Wambool Trails that now provides for a “return” route within the reserve.

The reserve falls within the local government area administered by Bathurst Regional Council and as such falls under the jurisdiction of the Chifley Zone Bush Fire Management Committee (CZBFMC). A NPWS representative attends the CZBFMC and is also an Executive member of this committee.

2.5.4 Other Uses

Although the Wambool Tip was to be closed when it was included in the reserve, it was not until August 1992 that closure of the transfer station eventually occurred. The tip area was then fenced by the NPWS to restrict any further dumping of domestic or commercial rubbish on the site. Limited restoration work was undertaken by Evans Shire Council, however further rehabilitation of the site is needed to reduce the obtrusiveness of the area within the landscape and ensure that viable vegetation corridors are created that link this area with the remainder of the nature reserve.

The installation of a major 132Kv power-line along Timber Ridge Road is continuing to contribute to erosion of areas along the western boundary of the reserve. The original excavation and earthworks associated with the installation of this utility removed all native vegetation along the route, and as a consequence scouring is occurring on steep cuttings and embankments.

For some time following gazettal of the reserve, illegal collection of firewood and burls as well as rubbish dumping continued on a regular basis. Following the formal closure and gating (locked) of management trails to restrict vehicular movement through the reserve these activities declined and are no longer considered to be an issue.

3. MANAGEMENT ISSUES AND STRATEGIES

Current Situation	Desired Outcomes	Strategies	Priority
<p>Geology, Soil and water conservation</p> <p>Earthworks during the construction of a new power line and in recent years as part of roadworks have resulted in areas of erosion along Timber Ridge Road. If ground cover is not restored to these locations through a dedicated rehabilitation program, inappropriate environmental impact will occur within the nature reserve, which will compromise the integrity and conservation value of the area.</p>	<p>Soil erosion is minimised and the quality of water leaving the reserve remains healthy.</p> <p>The eroded areas adjacent the 132Kv power line route as well as activities associated with road widening along Timber Ridge Road are restored and rehabilitated with suitable groundcover and understory species.</p>	<p>All works and activities will be undertaken in a manner that reduces impacts and minimises erosion and water pollution.</p> <p>Liaise with Country Energy and Bathurst Regional Council to ensure their works on the road and power line are undertaken in a manner that minimises erosion and water pollution.</p> <p>Approach Country Energy and Bathurst Regional Council to fund the implementation of a restoration and rehabilitation program to ameliorate soil erosion problems along Timber Ridge Road.</p>	<p>High</p> <p>High</p> <p>Medium</p>
<p>Native plant and animal conservation</p> <p>Limited records are available on fauna species within the reserve and future surveys may find new animals species, some of which may be threatened.</p> <p>Conservation of vegetation on neighbouring lands that surround the reserve would increase the value of the reserve and maintain wildlife corridors to other remnant native vegetation areas east of the reserve.</p>	<p>All existing native plant and animal species and communities are recorded and conserved.</p> <p>Biodiversity and habitat values are restored in areas subject to past poor land management practices.</p>	<p>Undertake a fauna survey (including threatened fauna)</p> <p>Continue to monitor the recovery of vegetation within the Wambool Tip site and adjacent to Timber Ridge Road and implement a restoration or rehabilitation program in cooperation with the appropriate authorities.</p> <p>Work with neighbours and vegetation management committees to encourage conservation of remnant native vegetation in the vicinity of the reserve</p>	<p>Medium</p> <p>Medium</p> <p>Low</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Introduced species</p> <p>There is currently no pest management plan for the reserve, however, programs to control introduced plants and animals occur on an as needed basis throughout the reserve in accordance with the Regional Pest Management Strategy.</p>	<p>That the impact of introduced species on native species and neighbouring lands is minimised.</p>	<p>Control and where possible eradicate introduced plant species. Priority will be given to the control of St Johns Wort, Serrated Tussock and Blackberry.</p> <p>Seek the cooperation of other authorities and neighbours in implementing weed control programs.</p> <p>Control introduced animal species and on a reactive basis manage any new feral pig activity by implementing a pig trapping or poisoning program.</p> <p>Seek the cooperation of other authorities and neighbours in implementing pest animal control programs.</p> <p>Prepare a pest management plan for the reserve by July 2007.</p>	<p>High</p> <p>High</p> <p>Medium</p> <p>Low</p> <p>High</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Fire management</p> <p>Fire is a natural feature of the environment of the reserve and is essential to the survival of some plant communities. Frequent or regular fire can cause loss of particular plant and animal species and communities, as can too infrequent fires. Fire can also damage cultural heritage features and fences and threaten neighbouring land.</p> <p>There is no known wildfire history for the reserve and no fuel management activities have been conducted by NPWS since gazettal in 1987.</p> <p>Given the infrequency of fire, the majority (if not all) of the reserve is considered as being long unburnt (an adverse fire regime) and as such exceeds the “recommended” fire frequency thresholds for the Dry Sclerophyll Shrub Forest vegetation communities. apart from subalpine communities. If this situation is not addressed there is expected to be a decline in biodiversity and conservation values within the reserve. Anecdotal evidence suggests that there has been a dramatic decline in orchid diversity over the past 20 years.</p>	<p>Implement fire regimes that are appropriate for the conservation of plant and animal communities and that enhance biodiversity in accordance with fire interval guidelines for broad vegetation types.</p> <p>Life, property and natural and cultural features and values are protected from bushfire.</p>	<p>Continue to participate in Chifley Zone Bush Fire Management Committee.</p> <p>Maintain coordination and cooperation with Rural Fire Service brigades and neighbours with regard to fuel management and fire suppression.</p> <p>Use ecological burning programs to enhance the biodiversity and conservation values of the reserve as well as reducing fuel for asset protection on neighbouring lands. All fuel reduction burning will be preceded by an assessment of environmental impacts.</p> <p>Prepare a reserve fire management strategy for the reserve by December 2007.</p> <p>Encourage further research into the ecological effects of fire in the reserve, in particular the effect of burning on orchid distribution and abundance.</p>	<p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>Medium</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Cultural heritage</p> <p>Limited knowledge is available regarding the traditional use of the reserve and the relative significance or value of this use as well as the contemporary use and value the reserve may provide for local Aboriginal communities.</p> <p>No Aboriginal sites have been recorded in the reserve.</p> <p>A small area of the reserve adjacent to Timber Ridge Road was subject to mining during the late 1880's. Five mines have been identified along with two modified survey trees.</p>	<p>Aboriginal and historic features and values are identified and protected.</p> <p>Aboriginal people are involved in management of Aboriginal cultural values in the reserve.</p> <p>Understanding of the cultural significance of the reserve is improved.</p>	<p>Consult and involve the Bathurst Local Aboriginal Land Council, the Wiradjuri Elders group and other relevant Aboriginal community organisations in the management of the Aboriginal cultural heritage of the reserve.</p> <p>The significance of all known historic sites to be determined and recorded in HHIMS.</p> <p>The existing gold mining sites will be left in situ and no active management of this area will occur other than as required for public safety.</p> <p>The survey (portion marker/boundary) trees will be mapped and as far as possible protected from fire.</p> <p>Further research into the Aboriginal and historic heritage values of the reserve will be encouraged.</p>	<p>Medium</p> <p>Low</p> <p>Low</p> <p>Low</p> <p>Low</p>
<p>Visitor use</p> <p>There are no visitor facilities within the reserve, including no public roads. Camping and fires are not permitted.</p> <p>The reserve is used on a limited basis by walkers and for nature appreciation and study. Most activities occur along the management trail network.</p> <p>Given the significant landscape and natural heritage values of the reserve it is important that these conservation values are not diminished through the encouragement of inappropriate recreational activities.</p>	<p>No designated or formalised walking tracks or other facilities are constructed.</p> <p>There is improved community awareness of the conservation values of the reserve.</p>	<p>Bushwalking will continue to be permitted throughout the reserve. Camping and fires will continue to be prohibited.</p> <p>Understanding and appreciation of the conservation values of the reserve will be promoted by developing a low key information brochure.</p>	<p>Medium</p> <p>Low</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Research</p> <p>Further research will improve understanding of the reserve's natural and cultural heritage, the processes that affect them and the requirements for management of particular species or items.</p> <p>Priority areas for research are fire management (in particular post burn monitoring of communities following an ecological burn) and the affect of fire on orchid distribution and abundance.</p>	<p>Research enhances the information base for management and has minimal environmental impact.</p>	<p>Undertake and encourage research to improve knowledge and management of natural and cultural heritage.</p>	<p>Medium</p>
<p>Neighbour relations</p> <p>Three neighbours directly adjoin the reserve along the northern, eastern and southern boundaries while along the western boundary (which follows Timber Ridge Road) another six neighbours indirectly adjoin the reserve.</p>	<p>Develop environmental management practices (where possible) with surrounding landholders.</p>	<p>Encourage adjoining landowners to manage lands for biodiversity outcomes to achieve desired management and ecological outcomes.</p>	<p>Low</p>

Current Situation	Desired Outcomes	Strategies	Priority
<p>Management operations</p> <p>A number of management trails (see Reserve Map) provide access for fire management, weed management and feral animal control purposes. All trails have locked gates to prevent unauthorised access.</p> <p>All matters relating to the management, maintenance and replacement of boundary fences are dealt with in accordance with the DEC Boundary Fencing Policy. Plain wire fencing is preferred over netting, ringlock and hingejoint fences. This style of fence does not accumulate litter or debris. Unlike other fence material, a plain wire design is not subject to frequent damage by native animals that create concentrated access points into the reserve that can be used by domestic stock.</p> <p>Signposting does not currently conform with corporate standards and needs to be replaced.</p> <p>The rehabilitation of the Wambool Tip site was never completed by Evans Shire Council and the area requires further work.</p>	<p>To ensure that access trails are maintained in a trafficable condition for management purposes only and that public vehicle access and inappropriate activities are restricted.</p> <p>To limit domestic stock entering the reserve.</p> <p>Ensure new areas have reserve boundary and trail signs installed.</p> <p>Tip site to be rehabilitated</p>	<p>Continue to maintain the existing management access network (fire trails) in line with fire management policies and other works priorities across the reserve and Region.</p> <p>Continue to process boundary fencing applications on a case by case basis in line with other Regional fencing priorities. Replacement boundary fencing will be constructed of plain wire only.</p> <p>Continue to upgrade and replace signposting throughout the reserve in accordance with NPWS standards and install new fire trail signs.</p> <p>Undertake further restoration of the tip and that Bathurst Regional Council be approached to contribute to the rehabilitation of the site.</p>	<p>High</p> <p>Medium</p> <p>Medium</p> <p>Low</p>

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

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

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

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