NSW GOVERNMENT
Environment, Climate Change & Water
National Parks & Wildlife Service

Burrinjuck Nature Reserve

Plan of Management

BURRINJUCK NATURE RESERVE

PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

Part of the Department of Environment, Climate Change and Water

September 2010

This plan of management was adopted by the Minister for Climate Change and the Environment on 16th September 2010.

Acknowledgments

The NPWS acknowledges that this reserve is in the traditional country of the Ngunawal and Wiradjuri people.

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

Cover photo by Scott Seymour, NPWS.

For additional information or any inquiries about this reserve or this plan of management, contact the NPWS South West Slopes Region Office at 7 Adelong Road Tumut, NSW, 2720 or by telephone on 6947 7000.

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FOREWORD

Burrinjuck Nature Reserve covers 5,207 hectares and is located on the South West Slopes of New South Wales, approximately 26 kilometres south-west of Yass.

Burrinjuck Nature Reserve contains six distinct forest ecosystems, including two threatened plant species and populations of the southern blue gum that are considered regionally significant. A total of 223 animal species have been recorded in the reserve, including 16 threatened species.

A number of Aboriginal sites have been recorded in the reserve, and illustrate the importance of this area to the Aboriginal community. In addition, 14 historic sites have been identified in the reserve including relics of agricultural use, forestry and dam construction.

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 Burrinjuck Nature Reserve was placed on public exhibition from 29th August until 1st December 2008. The submissions received were carefully considered before adopting this plan.

The plan contains a number of actions to achieve the State Plan priority to "Protect our native vegetation, biodiversity, land, rivers and coastal waterways", including surveys for threatened species, programs to minimise erosion, control of pest animals and weeds, and management of fire.

This plan of management establishes the scheme of operations for Burrinjuck 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

1. BURRINJUCK NATURE RESERVE

Burrinjuck Nature Reserve (referred to as "the reserve" in this plan) is located on the South West Slopes of New South Wales, approximately 14 kilometres south of Bookham and 26 kilometres south-west of Yass. The reserve covers a total area of 5,207 hectares. The large northern block encompasses 5,118 hectares on the northern shores of Burrinjuck Dam, and the southern block covers 89 hectares of land 800 metres to the south on the opposite side of the dam.

Burrinjuck Nature Reserve was originally gazetted in 1984, with an area of 1,286 hectares, over what was previously Burrinjuck State Forest. It adjoined, on its eastern boundary, Burrinjuck State Recreation Area (part of which is now Burrinjuck Waters State Park), established in 1977 on the foreshores of Burrinjuck Dam. In 2001, as part of the Southern Regional Forest Agreement (see section 2.3), an additional 367 hectares were added to Burrinjuck Nature Reserve in 4 parcels, as was part of the state recreation area. In 2006, 1911 hectares adjoining the western side of Burrinjuck Nature Reserve was added to the reserve

The name Burrinjuck is thought to be derived from the Aboriginal words, Booren Yiack, which mean 'precipitous mountain' and refer to the peak that rises in the west of the reserve. This was initially translated as Barren Jack by settlers, but in 1910 was changed to Burrinjuck by Government officials who felt that Barren Jack was not in keeping with the promotion of the new Murrumbidgee Irrigation Area development.

Black Andrew Nature Reserve is located southwest of the reserve, adjacent to the southern portion of the reserve, and Oak Creek Nature Reserve is approximately 6 kilometres to the southeast. Most of the surrounding land is cleared for grazing, with the exception of Bungongo State Forest to the west which is native forest.

The reserve lies within the area of Yass Valley Shire Council, Murrumbidgee Catchment Management Authority, Southern Tablelands Livestock Health and Pest Authority, and the Onerwal and Tumut-Brungle Local Aboriginal Land Councils.

2. MANAGEMENT CONTEXT

2.1 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* (NPW Act), the NPW Regulation, the *Threatened Species Conservation Act 1995* (TSC Act) and the policies of the National Parks and Wildlife Service (NPWS). The policies are based on 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 Burrinjuck Nature Reserve except in accordance with this plan. This plan will also apply to any future additions to Burrinjuck Nature Reserve. Should management strategies or works be proposed for the nature reserve or any additions that are not consistent with the plan, an amendment to the 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:

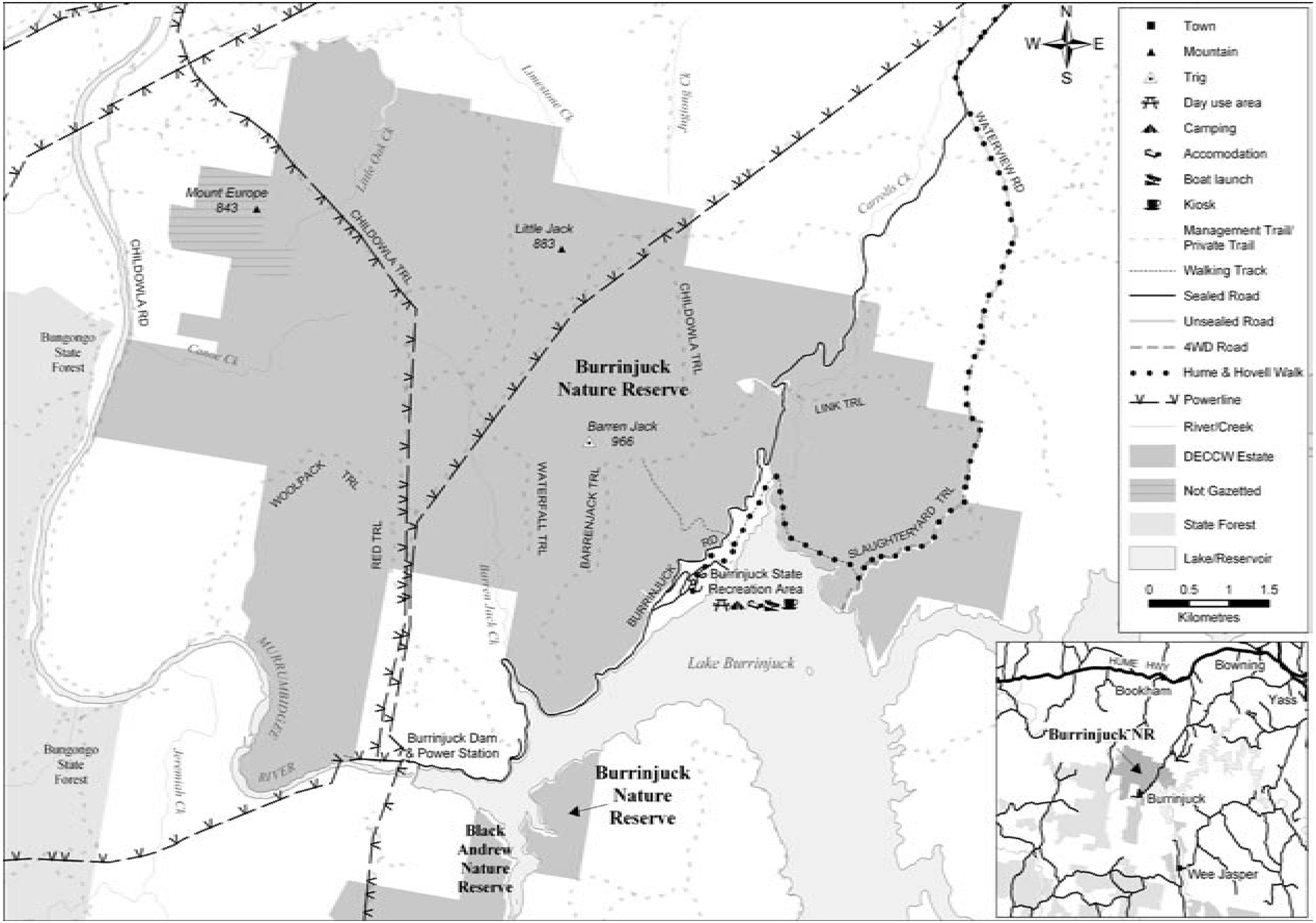
- conserve biodiversity, maintain ecosystem functions, and protect geological and geomorphological features and natural phenomena;
- conserve places, objects, features and landscapes of cultural value;
- promote public appreciation, enjoyment and understanding of the reserve's natural and cultural values;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

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

2.3 REGIONAL FOREST AGREEMENTS

Regional Forest Agreements (RFAs) are one of the principle means of implementing the National Forest Policy Statement of 1992. Under this statement, Commonwealth, State and Territory governments agree to work towards a shared vision for Australia's forests. This aims to maintain native forest estate, manage it in an ecologically sustainable manner and develop sustainable forest-based industries. The statement provided for joint comprehensive assessments of the natural, cultural, economic and social values of forests. These assessments formed the basis for negotiation of Regional Forest Agreements that provide, amongst other things, for Ecologically Sustainable Forest Management.

The Southern Regional Forest Agreement covers the planning area. The process leading up to the RFA provided for major additions to the reserve system, including the additions to Burrinjuck Nature Reserve.


Town
Mountain
Trig
Day use area
Camping
Accomodation
Boat launch
Kiosk
Management Trail/
Private Trail
Walking Track
Sealed Road
Unsealed Road
4WD Road
Hume & Hovell Walk
Powerline
River/Creek
DECCW Estate
Not Gazetted
State Forest
Lake/Reservoir
0 0.5 1 1.5
Kilometres
N
W
E
S
Burrinjuck Nature Reserve
Mount Europe 843
Little Jack 883
Barren Jack 966
CHILDOWLA RD
CHILDOWLA TRL
CHILDOWLA TRL
WOOLPACK TRL
RED TRL
WATERFALL TRL
BARRENJACK TRL
BURRINJUCK RD
LINK TRL
SLAUGHTERYARD TRL
WATERVIEW RD
Limestone Ck
Jugiong Ck
Little Oak Ck
Carrolls Ck
Canoe Ck
Barren Jack Ck
Jeremiah Ck
Bungongo State Forest
Bungongo State Forest
MURRUMBIDGEE RIVER
Burrinjuck State Recreation Area
Lake Burrinjuck
Burrinjuck Dam & Power Station
Burrinjuck Nature Reserve
Black Andrew Nature Reserve
HUME HWY
Bowning
Bookham
Yass
Burrinjuck NR
Burrinjuck
Wee Jasper

RESERVE MAP

3. VALUES OF THE RESERVE

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, natural heritage, cultural heritage, threats and on-going use are dealt with individually, but their inter-relationships are recognised.

3.1 LANDFORM, GEOLOGY AND SOILS

The reserve is rugged, and heavily timbered on steep falls into the Murrumbidgee River and Burrinjuck Dam. Elevations in the northern block range from 400 metres on the shores of Burrinjuck Dam to 965 metres in the centre of the block, and elevations in the southern block range from 370 metres to 590 metres. A ridgeline runs from Little Jack peak in the north through the centre of the northern block, falling to gentler slopes east of Burrinjuck Road.

The northern block of the reserve is underlain by Devonian age sediment including tuff, rhyolite, dacite, agglomerate and shale. The south-western tip of the block covers Burrinjuck Granite, while the western edge is underlain by Silurian age Douro Volcanics, including dacite, andesite, tuff, tuffaceous sandstone and shale. The reserve's southern block covers Devonian age Hatchery Creek Conglomerate.

The reserve forms part of the Murrumbidgee Catchment. Several large creeks flow through the reserve and drain into Burrinjuck Dam, including Barren Jack Creek which originates in the reserve and Carrolls Creek. Canoe Creek in the western portion of the reserve, and Limestone Creek which begins at the northern tip of the reserve, drain into the Murrumbidgee River. Many minor creek lines originate in the reserve with most carrying water south to Burrinjuck Dam.

3.2 NATIVE PLANTS

The reserve possesses a high diversity of vegetation types with 6 distinct forest ecosystems identified within the reserve (EcoGIS 2004). These ecosystems are:

Apple box – Norton's box moist grass forest: This forest type is characterised by a canopy of Norton's box *Eucalyptus nortonii*, apple box *E. bridgesiana* and red stringybark *E. macrorhyncha* and a sparse shrub layer of silver wattle *Acacia dealbata* and tick indigo *Indigofera adesmiifolia*. The short ground layer is made up of forbs and grasses such as stinking pennywort *Hydrocotyle laxiflora*, native geranium *Geranium solanderi var. solanderi*, *Acaena echinata*, native carrot *Daucus glochidiatus*, weeping grass *Microlaena stipoides var. stipoides*, snowgrass *Poa meionectes*, Austral bear's ear *Cymbonotus preissianus*, and *Plantago varia*. This is the dominant vegetation type in the eastern half of the reserve.

Wee Jasper Norton's box – Poa grass forest: This forest type contains a canopy of Norton's box *Eucalyptus nortonii* and red stringybark *E. macrorhyncha*, a mid storey of shiny cassinia *Cassinia longifolia*, hoary guinea flower *Hibbertia obtusifolia* and slender tea tree *Leptospermum brevipes*, and an understorey of forbs and grasses such as daphne heath *Brachyloma daphnoides*, clustered everlasting *Chrysocephalum semipapposum*, *Gonocarpus tetragynus* and snow grass *Poa sieberiana var. cyanophylla*. The steep slopes in the south west of the reserve are dominated by this vegetation type.

Brittle Gum – Broad-Leaved Peppermint Poa grass forest: This forest type has a canopy of brittle gum *E. mannifera*, broad-leaved peppermint gum *E. dives*, Robertson's peppermint *E robertsonii* ssp. *robertsonii* and red stringybark. The shrub layer is made up of a pea bush *Platylobium formosum* ssp. *formosum*, hoary guinea flower *Hibbertia obtusifolia*, red-stemmed wattle *Acacia rubida* and *Monotoca scoparia*, while the ground layer consists of forbs and grasses including *Gonocarpus tetragynus*, grass trigger-plant *Stylidium graminifolium*, *Poa tenera*, *Brachyscome spathulata*, silvertop wallaby grass *Joycea pallida* and snowgrass *Poa sieberiana* var. *sieberiana*. This community is common on steeper slopes in the southern half of the reserve.

Dwyer's Gum heathy low open woodland: This forest type has a canopy of black cypress pine *Callitris endlicheri*, white box *Eucalyptus albens*, red stringybark *E. macrorhyncha* and inland scribbly gum *E. rossii*. The sparse mid storey is dominated by sticky everlasting *Bracteantha viscosa*, and the understorey is made up of forbs, grasses and sedges including *Caladenia mentiens*, fringed spider orchid *Caladenia tentaculata*, native carrot *Daucus glochidiatus*, *Gonocarpus elatus*, yellow pennywort *Hydrocotyle foveolata*, *Senecio* species E, spoon cudweed *Stuartina muelleri*, annual bluebell *Wahlenbergia gracilenta*, snowgrass *Poa meionectes*, and wattle mat-rush *Lomandra filiformis ssp. coriacea*. This woodland covers a relatively small area at the northern boundary of the reserve.

Long Leaved Box (Black Cypress Pine) heath shrub forest: This forest type has a canopy of long-leaved box *Eucalyptus goniocalyx* and red stringybark *E. macrorhyncha*. The mid storey consists of common fringe-myrtle *Calytrix tetragona*, lesser guinea flower *Hibbertia calycina*, varnish wattle *Acacia verniciflua*, *Cassinia longifolia*, grass tree *Xanthorrhoea glauca ssp. angustifolia*, green wattle *Acacia deanei ssp. Deanei*, a woolly grevillea/crimson grevillea cross *Grevillea lanigera x polybractea* and *Daviesia pubigera*. The understorey is dominated by forbs including *Persoonia rigida*, spotted doubletail *Diuris maculata*, *Damperia purpurea* and *Senecio anethifolius*. There are scattered pockets of this vegetation type throughout the central and western areas of the reserve.

Blue Gum – Broad-Leaved Peppermint dry grass shrub forest: This forest type has a canopy of southern blue gum *Eucalyptus bicostata*, broad-leaved peppermint *E. dives*, red stringybark *E. macrorhyncha* and Robertson's peppermint *E. robertsonii ssp. robertsonii*. The mid storey is composed of common bracken *Pteridium esculentum*, silver wattle *Acacia dealbata*, *Cassinia longifolia*, *Hovea linearis*, honeypots *Acrotriche serrulata*, *Platylobium formosum ssp. formosum*, pale wedge pea *Gompholobium huegelii* and *Monotoca scoparia*. The understorey is made up of grasses, forbs and sedges including twyning glycine *Glycine clandestina*, rough bedstraw *Galium gaudichaudii*, native geranium *Geranium solanderi var solanderi*, *Plantago varia*, *Brachycome spathulata*, pink fairy *Caladenia carnea var carnea*, kidneyweed *Dichondra repens*, cudweed *Euchiton gymnocephalus*, nodding greenhood *Pterostylis nutans*,

prickly starwort *Stellaria pungens*, Australian bluebell *Wahlenbergia stricta ssp. stricta*, common whaetgrass *Elymus scaber var scaber*, wattle mat-rush *Lomandra filiformis ssp. filiformis* and snow grasses *Poa sieberiana var hirtella* and *Poa sieberiana var cyanophylla*. This community dominates the gentle gradients in the centre of the reserve with some small pockets in the east and south.

The populations of southern blue gum *E. bicostata* that exist in the reserve are considered regionally significant. The stands within the reserve are most likely regrowth following logging in the area, and they cover a range of age classes from new regrowth to mature trees. These trees represent significant habitat for arboreal animals and owls in the reserve.

Two flora species have been recorded within the reserve that are listed on the schedules of the *Threatened Species Conservation Act 1995* (TSC Act). These are the Yass daisy *Ammobium craspedioides* which is listed as vulnerable, and the crimson spider orchid *Caladenia concolor* which is listed as endangered. The Wee Jasper grevillea *Grevillea iaspicula,* also listed as endangered, has been recorded just outside the reserve.

Over recent years there has been an ongoing project to protect the population of Wee Jasper grevillea. This project involves maintaining a fence around the population to protect the plants from goats and other pest species, and the use of a gravity fed watering system to prevent seedling stress during drought periods. The fence must be checked several times a year to ensure that rock falls and other factors have not allowed goats to access the area.

A Threatened Species Priorities Action Statement (PAS) has been prepared that identifies strategies and actions to promote the recovery of many threatened plant species, populations and ecological communities and manage key threatening processes.

3.3 NATIVE ANIMALS

NSW Wildlife Atlas records reveal a high diversity of native animals within the reserve. A total of 223 species have been recorded in the reserve, made up of 3 amphibian species, 9 reptile species, 179 bird species and 32 mammal species.

Sixteen fauna species that are listed on the schedules of the TSC Act have been recorded within the reserve. These species are listed in Table 1. Some of these threatened species were recorded in the reserve up to 30 years ago and have not been recorded since, for example the olive whistler and the speckled warbler, so may no longer be present.

The Murrumbidgee River below Burrinjuck Nature Reserve is part of the Endangered Ecological Community of the Lower Murray Catchment. This community includes known or expected habitat for several threatened fish species listed under the *Fisheries Management Act 1994*, including trout cod *Maccullochella macquariensis*, silver perch *Bidyanus bidyanus*, and Macquarie perch *Macquaria australasica*. Any fire management or other operational activities in the reserve will take into account this important aquatic habitat.

The Threatened Species Priorities Action Statement (PAS) also identifies strategies and actions to promote the recovery of threatened animal species, populations and ecological communities and manage key threatening processes for species.

A full fauna list has been included in Appendix 1.

Table 1. Threatened animal species recorded in Burrinjuck Nature Reserve

Common name	Scientific name	Legal Status[1]
Gang-gang cockatoo	*Callocephalon fimbriatum*	Vulnerable
Turquoise parrot	*Neophema pulchella*	Vulnerable
Superb parrot	*Polytelis swainsonii*	Vulnerable
Barking owl	*Ninox connivens*	Vulnerable
Powerful owl	*Ninox strenua*	Vulnerable
Brown treecreeper	*Climacteris picumnus*	Vulnerable
Speckled warbler	*Pyrrholaemus sagittatus*	Vulnerable
Black-chinned honeyeater (eastern subspecies)	*Melithriptus gularis subsp. gularis*	Vulnerable
Hooded robin	*Melanodryas cucullata*	Vulnerable
Grey-crowned babbler (eastern subspecies)	*Pomatostomus temporalis subsp. temporalis*	Vulnerable
Olive whistler	*Pachycephala olivacea*	Vulnerable
Diamond firetail	*Stagonopleura guttata*	Vulnerable
Spotted-tailed quoll	*Dasyurus maculatus*	Vulnerable
Yellow-bellied glider	*Petaurus australis*	Vulnerable
Squirrel glider	*Petaurus norfolcensis*	Vulnerable
Eastern bent-wing bat	*Miniopteris schreibersii oceanensis*	Vulnerable

[1] Status under TSC Act

3.4 ABORIGINAL HERITAGE

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

Burrinjuck Nature Reserve is within an area that was inhabited by the Ngunawal people, and together with the surrounding area provided the Ngunawal people with a variety of foods, medicines, shelter and utensils. Today the northern portion of the reserve is within the area of the Onerwal Local Aboriginal Land Council, and the southern portion is within the area of the Tumut/Brungle Local Aboriginal Land Council. The southern section of the reserve is within an area of land subject to the Tumut-Brungle Area registered Indigenous Land Use Agreement.

Seven Aboriginal sites have been recorded within the reserve, ranging from small to very large artefact scatters. These sites have all been identified along roadsides and easements, and their size and number indicate that more sites are likely to exist within the reserve. Grinding stones and possible scar trees have also been identified in the reserve.

One significant Aboriginal artefact scatter was damaged prior to acquisition of the reserve and measures have since been undertaken to prevent further erosion at the site.

The high number of artefacts found, the wide variety of artefacts and the presence of sub-surface archaeological deposits all indicate repeated and extended occupation by Aboriginal people (English 1998). Prior to the construction of Burrinjuck Dam, the reserve was close to the junction of the Goodradigbee and Murrumbidgee Rivers, both of which were of high significance to Aboriginal people. This significant junction, as well as the limestone outcrops in the area (Cave Island), indicate that this was most likely a very significant meeting place. Several major sites have also been recorded at the head of the Goodradigbee River on Mt Morgan; this shows that the river was a significant ceremonial path (Boot 2004).

3.5 HISTORIC HERITAGE

Fourteen historic sites have been identified within Burrinjuck Nature Reserve, dating from the period that Burrinjuck was managed as a state forest, from agricultural use of the area (slaughter yards, saw pits and dams) and from the period of construction of Burrinjuck Dam.

In 1908 a railway was constructed from Goondah to Burrinjuck to carry cement, materials and passengers to the Burrinjuck Dam construction site. The narrow-gauge locomotives used on the line had to be refilled with water at several places along the line and several dams and weirs were constructed for this purpose (Chanson & James 1999). The most notable of these, the De Burgh Dam, was built in 1907 to collect water from Carrolls Creek. This dam was the first reinforced-concrete thin arch dam to be constructed in Australia (Chanson & James 1999). Burrinjuck dam was completed in 1928 and the Goondah-Burrinjuck railway line was dismantled the following year. The railway route was later converted to a road and now provides public vehicle access to the state recreation area and the Dam and power station. The De Burgh Dam and several weirs further down the line are still intact but are fully silted.

Burrinjuck Dam and Lake and the surrounding foreshores were listed on the State Heritage Register in April 1999 as “a fascinating example of how applied modern technology has been used to meet the demand of an expanding rural area”. The greater dam site includes many structures and artefacts (both above and below water) that are associated with the early construction phases of Burrinjuck Dam. These include railway remnants, the De Burgh locomotive water supply dam, Barren Jack water supply dam, a children’s graveyard at the former town site, a Church of England church and some former staff cottages. None of these sites are within the reserve.

A number of pine trees in the reserve were originally planted during the construction of Burrinjuck Dam. The heritage value of these trees has not been determined.

3.6 PUBLIC USE

Burrinjuck Waters State Park is located at the southeast of the reserve's northern block, on the foreshores of Burrinjuck Dam. This recreation area is managed by the Land and Property Management Authority and provides cabin accommodation and camping facilities and caters for water sports such as boating, fishing and swimming.

Recreational activities not consistent with the study of nature and natural environments are generally considered inappropriate uses of nature reserves. The reserve currently receives low levels of use for activities such as nature study, walking and bird watching, with most users originating from the state park. The reserve is also a popular destination for recreational anglers.

One public access road, Burrinjuck Road, passes through the reserve and provides access to the state park as well as the dam wall and power station. All other trails within the reserve are management trails and not for public vehicular use. There are no public facilities in the reserve other than the Hume and Hovell walking track, which is managed by the Land and Property Management Authority and passes through the south-east of the reserve and into the state park from where a boat trip is required across the dam, and a walking track that runs from the state park to Mount Barren Jack. The latter track is quite steep, is only suitable for experienced walkers, and receives very little use.

4. THREATS TO RESERVE VALUES

4.1 INTRODUCED PLANTS

An introduced plant species is defined in this plan as any species not endemic to the reserve. Introduced species within the reserve and on adjoining land are of concern because they have the potential to have detrimental effects on ecological values and can spread to and from neighbouring land. The *Noxious Weeds Act 1993* places an obligation upon public authorities to control noxious weeds on land that they occupy to the extent necessary to prevent such weeds spreading to adjoining lands. NPWS also has a priority to control environmental weeds that threaten natural habitats.

The NPWS South West Slopes Region Pest Management Strategy identifies priority pest species and programs for action through set criteria. By following a similar process the prioritisation of reserve pest species programs may be established and directly linked into the regional strategies. This risk analysis will consider such issues as the control of weeds in endangered ecological communities, significant remnant vegetation associations, threatened/endangered species habitat and areas of neighbour concern. The risk of new weed incursions will also be considered.

Introduced plant species recorded in the reserve include St John's wort *Hypericum perforatum*, Paterson's curse *Echium plantagineum*, blackberry *Rubus fruticosus*, serrated tussock *Nassella trichotoma*, sweet briar *Rosa rubiginosa* and radiata pine *Pinus radiata*. Since gazettal, ongoing weed control programs have focussed on reducing the extent of blackberry within the reserve. In the past, control programs have also targeted St John's wort, sweet briar, and Paterson's curse.

There are a large number of very old (~80 years old) radiata pine trees growing along Burrinjuck Road. These trees are a constant source of wildings and have led to a high number of pines of various ages within the reserve. A radiata pine wilding control program using stem injections began in 1999. The aim of this program is to target the younger pines at the edges of the infestation to prevent spread and then progressively poison the trees back towards Burrinjuck Road. It is planned that the trees closest to the road will be cut down rather than poisoned to ensure they do not fall on the road as they die.
A road easement exists along the Burrinjuck Road which is managed by Yass Council, NPWS will work with the council to manage the pine trees within this reserve.

The pine tree control program will not target the large original pine trees planted during the construction of Burrinjuck Dam. The heritage value of these trees needs to be assessed.

4.2 INTRODUCED ANIMALS

An introduced animal species is defined in this plan as any animal species not native to the reserve. Introduced animals may impact upon native fauna populations through predation or competition for food or shelter. Introduced animals in the reserve include wild dogs, feral pigs, red foxes, goats, feral cats and rabbits. All introduced species are managed in accordance with the actions listed in the Regional Pest Management Strategy.

The Burrinjuck area has had a long history of wild dog and fox predation on domestic stock, predominantly sheep. Wild dog immigration is thought to stem from downstream of Burrinjuck Dam where access across the Murrumbidgee River is possible during periods of low flow. Sandpad monitoring is undertaken annually to monitor pest animal numbers and to assess the effectiveness of control programs. A dog and fox control program, utilising 1080 baits, is undertaken in the reserve in conjunction with the Southern Tablelands Livestock Health and Pest Authority.

Feral goats exist in high numbers in the eastern section of the nature reserve. A control program undertaken in 2006 resulted in the removal of 22 goats from the reserve. Follow up programs in 2007 and 2008 resulted in the removal of a further 91 goats and 180 goats respectively. Goats impact heavily on native vegetation and pose a significant threat to populations of the Wee Jasper grevillea.

There have been signs of pig activity in the reserve but there is currently no control program specifically targeting this species. There has been some evidence of stock straying into the reserve from neighbouring properties, particularly during recent periods of severe drought. Rabbits exist in the reserve in small numbers.

4.3 FIRE MANAGEMENT

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.

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 (NPWS, 2005). The NPWS uses a zoning system for bushfire management which is compatible with the zoning used by the Southern Tablelands Zone Bush Fire Management Committee (BFMC) in its bushfire risk management plan.

A separate map-based fire management strategy has been prepared for Burrinjuck Nature Reserve. Annual hazard reduction programs, which may include mechanical fuel reduction, prescribed burning and fire trail works, are submitted to the BFMC. Six prescribed burns have been implemented within the reserve since 1982.

Wildfires have occurred on average 16 years apart for the last 66 years, although it is likely that they were more frequent in the past due to steam train access through the area. In the majority of cases ignitions were caused by lightning. Large landscape fires burnt through the reserve and surrounding region in 1951, 1972 and 2003. These fires came from the west-northwest, burnt the entire reserve and continued to the east. The most recent wildfire, in January 2003, started west of the reserve boundary and, after burning through Burrinjuck Nature Reserve and the state park, jumped the Murrumbidgee River and Burrinjuck Dam, and spotted to the east, south and south-west of the reserve. Close to 30,000 hectares of land was affected.

The intensity and frequency of fires in the reserve means that a high intensity wildfire occurring within the next 15-30 years could severely impact the biodiversity of the reserve.

In 1998 the CSIRO undertook a vegetation survey in Burrinjuck Nature Reserve, with the aim of producing a vegetation map of the reserve. Following the fires of 2003 it was decided to return to the survey plots established in 1998 to monitor the vegetation recovery in the reserve for five years following the fires. 2007 marks the end of this initial five year period and it is intended for monitoring to now take place once every five years.

A fuel monitoring program was initially established in 1998 to monitor fine fuels and establish photographic points at each monitoring site. This program was repeated in 2002 and 2004. The fire management strategy for the reserve recommends that fuel monitoring is repeated every five years.

4.4 VISITOR IMPACTS

At present there is some evidence of illegal use of the reserve by trail bike riders and four-wheel drive vehicles. Some informal camping also takes place in the reserve, especially close to the foreshores of the dam and along the Murrumbidgee River.

One of the main threats to the endangered crimson spider orchid is damage caused by vehicles leaving established tracks. Illegal access to reserve trails needs to be prevented as part of the threat abatement plan for this species.

4.5 CLIMATE CHANGE

Climate change has been listed as a key threatening process under the Threatened Species Conservation Act. Projections of future changes in climate for NSW include higher temperatures, increasing sea levels and water temperatures, elevated CO_2, 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.

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. Species most at risk are those unable to migrate or adapt, particularly those with small population sizes or with slow growth rates. The potential impact of climate change is difficult to assess since it depends on the compounding effects of other pressures, particularly barriers to migration.

Adjusting our management of the environment through programs to reduce the pressures arising from other threats will help reduce the severity of the effects of climate change.

5. MANAGEMENT OPERATIONS AND OTHER USES

There are two powerline easements crossing the reserve. Several trails follow these easements and are used by Transgrid to access their facilities for maintenance.

The endangered crimson spider orchid is commonly found at the sides of trails and roads. This species is at threat from inadvertent damage during road maintenance activities, as well as from vehicles travelling off-road. Management of this species will need to be considered during any planned trail maintenance activities. Vehicles used for management operations should not travel off track unless absolutely necessary.

The northern portion of the reserve is accessed via Burrinjuck Road. The southern portion can be accessed through private property, off Wee Jasper Road, or by boat.

6. MANAGEMENT STRATEGIES AND ACTIONS

Current Situation	Desired Outcomes	Management Response	Priority
6.1 Soil and water conservation Several trails in the reserve are very steep and there is the potential for erosion to occur during and after rain. Soil erosion has the potential to become a major problem if frequent fires remove ground cover.	Human induced soil erosion is prevented or arrested and natural erosion is minimised where appropriate. Water quality and health of reserve streams is improved.	6.1.1 Undertake all works in a manner that minimises erosion and water pollution. 6.1.2 Continue to support the Murrumbidgee Catchment Management Authority to maintain and improve water quality in the catchments. 6.1.3 If prescribed burning, ensure burn areas are strategically implemented across the landscape so that large areas and slopes are not left exposed. 6.1.4 Maintain steep trails, including the track to Barren Jack, with appropriate drainage measures to help prevent erosion. 6.1.5 Continue goat control programs to minimise erosion caused by the species and improve water quality in the reserve.	High Low Medium High High

Current Situation	Desired Outcomes	Management Response	Priority
6.2 Native plants Two threatened flora species have been recorded in the reserve. It has been suggested that fire may promote recruitment of the crimson spider flower. Actions to conserve threatened species in the reserve are in the Threatened Species Priorities Action Statement. The reserve also supports several stands of southern blue gum *E. bicostata* that are considered regionally significant. Several populations of threatened species in the area, particularly of Wee Jasper grevillea, are located on private land. Exclusion fencing has been established around one population of the Wee Jasper grevillea.	Native plant species and communities are conserved. Structural diversity and habitat values are restored in areas subject to past disturbance.	6.2.1 Encourage vegetation surveys for threatened plant species. 6.2.2 Develop appropriate long-term conservation and management strategies for all threatened species and significant vegetation. 6.2.3 Continue to undertake goat control programs to minimise impacts of this species on native vegetation, specifically populations of threatened species. 6.2.4 Maintain fencing around populations of Wee Jasper grevillea to ensure domestic stock and pest species are excluded. 6.2.5 Undertake annual control of blackberry and sweet briar in areas where threatened species occur. 6.2.6 Undertake enrichment planting of Wee Jasper grevillea sites. 6.2.7 Work with neighbours and catchment management authorities to encourage conservation and appropriate management of key habitat and corridors adjacent to the park, especially those areas where threatened species and significant vegetation communities are located. 6.2.8 Encourage research into the effect of fire on the crimson spider orchid.	Medium Medium High High High Medium Low Low

Current Situation	Desired Outcomes	Management Response	Priority
6.3 Native Animals Sixteen threatened fauna species have been recorded in the reserve, including 12 bird species and 4 mammal species. Other species may also be present, and some records are very old and need confirming. Threatened species in the reserve are managed in accordance with the Threatened Species Priorities Action Statement. This identifies the need to assist the eastern bentwing-bat by protecting artificial roosting sites as well as natural hollows, and to protect large area of natural bush to provide habitat for the barking owl. Surveys have been undertaken in the past for spotted-tailed quolls.	Native animal species are conserved. There is greater understanding of species diversity, distribution and ecological requirements.	6.3.1 Encourage surveys for threatened animal species. 6.3.2 Identify and protect significant roost habitat for eastern bentwing-bats in artificial structures, eg culverts, old buildings, mines. 6.3.3 Establish formal conservation arrangements with neighbouring properties to protect barking owl habitat. 6.3.4 Undertake surveys for threatened woodland birds in areas of suitable habitat. 6.3.5 Continue cooperative fox and dog control programs to minimise the impacts of these species on native fauna.	Medium Medium Low Low High

Current Situation	Desired Outcomes	Management Response	Priority
6.4 Cultural Heritage			
Seven Aboriginal sites have been identified in the reserve, and there is the potential for more to be identified.	Aboriginal and historic features and values are identified and protected.	6.4.1 Precede all ground disturbance work by a check for cultural features. Any works undertaken will incorporate appropriate conservation measures to mitigate impacts on cultural heritage.	High
The sites that have been identified are large and illustrate the importance of this area to the Aboriginal community.	Aboriginal people are involved in management of the Aboriginal cultural values in the park.	6.4.2 Consult and involve the Onerwal and Tumut-Brungle Local Aboriginal Land Councils and other relevant Aboriginal community organisations in the management of Aboriginal sites, places and values, including interpretation of places or values.	High
Fourteen historic sites have been identified in the reserve including relics of agricultural use, forestry and dam construction.	Understanding of the cultural values of the park is improved.	6.4.3 Encourage further research into the Aboriginal heritage values of the park in consultation with the Onerwal and Tumut-Brungle LALCs and community groups.	Low
		6.4.4 Historic sites in the reserve will be recorded and left in situ.	Low
		6.4.5 Undertake a cultural assessment of the original pine trees planted during construction of Burrinjuck Dam.	Low

Current Situation	Desired Outcomes	Management Response	Priority
6.5 Climate Change Climate change has been listed as a key threatening process under the TSC Act.	The effects of climate change on the reserve are better understood. The impacts of climate change on natural systems are reduced.	6.5.1 Encourage research into appropriate indicator species within the reserve to monitor the effects of climate change. 6.5.2 Continue existing fire, pest and weed management programs to increase the ability of native flora and fauna to cope with future disturbances, including climate change.	Medium Medium

Current Situation	Desired Outcomes	Management Response	Priority
6.6 Introduced Plants and Animals The reserve contains a number of weed species including blackberry, St John's wort, Paterson's curse, serrated tussock and radiata pine. Control programs have been commenced for these species in accordance with regional priorities. The reserve contains a number of introduced animals including wild dogs, red foxes, feral pigs, feral goats, feral cats and rabbits. The Regional Pest Management Strategy was prepared in 2008. At present there is some evidence of straying stock entering the reserve. The majority of boundary fences were replaced following the fires in 2003.	Introduced plants and animals are controlled and where possible eliminated. Pest control programs are undertaken in consultation with neighbours.	6.6.1 Manage introduced species in accordance with the Regional Pest Management Strategy. 6.6.2 Control and, where possible, eradicate introduced plants and animals. Monitor noxious and significant environmental weeds. Treat any new outbreaks where possible. 6.6.3 Undertake integrated pest control programs with the Southern Tablelands Livestock Health and Pest Authority and neighbours. 6.6.4 Maintain an ongoing fox and dog control program in conjunction with neighbours and the Livestock Health and Pest Authority. 6.6.5 Implement a control program for pigs. Sand pad monitoring indicates a rise in pig numbers, and pig impacts are noted. 6.6.6 Continue the feral goat control program. 6.6.7 In conjunction with neighbours, maintain boundary fences and gates and determine strategies to exclude stock.	High High High High High High High

Current Situation	Desired Outcomes	Management Response	Priority
6.7 Fire Management The most recent wildfire occurred in January 2003. There have been few recorded ignitions in the reserve but evidence suggests that fire has been frequent over the last 50 years. A high intensity fire within the next 15-30 years could severely impact biodiversity in the reserve. A map-based Fire Management Strategy was prepared in 2006. The facilities of Burrinjuck Waters State Park are located immediately adjacent to the reserve boundary. Burrinjuck Village is within 2 kilometres of the reserve boundary.	Life, property and natural and cultural values are protected from fire. Fire frequencies are appropriate for conservation of native plant and animal communities.	6.7.1 Implement the Reserve Fire Management Strategy for the reserve. 6.7.2 Participate in the Southern Tablelands Zone Bush Fire management Committee. Maintain cooperative arrangements with RFS brigades and fire control officers, other fire authorities and surrounding landowners in regard to fuel management and fire suppression. 6.7.3 Manage the nature reserve to protect biodiversity in accordance with the identified fire interval guidelines for vegetation communities outlined in the Fire Management Strategy.	High High High

Current Situation	Desired Outcomes	Management Response	Priority
6.8 Recreational Opportunities Burrinjuck Waters State Park is located on the southern boundary of the reserve. Facilities include accommodation, camping, and water sports. The reserve receives some use for bushwalking, bird watching and camping. Most visitors originate from the nearby state park. There is some evidence of illegal use by trail-bike riders and four-wheel drive vehicles. This kind of activity can have an extremely detrimental impact on threatened species, such as the crimson spider orchid which commonly grows along roadsides. Promotion of community understanding and appreciation of the conservation values of the reserve is important for minimising damaging activities and maximising visitor enjoyment. The walking track to Mount Barren Jack receives minimal use and is maintained at a standard intended for experienced walkers.	Visitor use is appropriate and ecologically sustainable. Visitor use encourages appreciation of the reserve's values. The local community is aware of the significance of the area and of management programs.	6.8.1 Exclude vehicular access except for essential management requirements of the reserve. 6.8.2 Provide information indicating appropriate uses of the reserve at all access points. 6.8.3 Permit day bushwalks, picnics and educational visits, subject to limits on numbers and other conditions if necessary to minimise impacts. No facilities will be provided and no fires will be permitted in the reserve. 6.8.4 Maintain the walking track to the top of Mount Barren Jack to a Class 4 Australian Standard walking track. Provide minimal directional signage where necessary. 6.8.5 Prohibit camping, trail bike riding and horse riding. Utilise a range of techniques including installation of barriers and law enforcement activities as necessary to prevent these activities continuing in the reserve. 6.8.6 Monitor levels and impacts of use. 6.8.7 Organise media releases, educational material and contact with neighbours and community organisations where necessary, ensure information about the reserve's values and appropriate use is made available at Burrinjuck Waters State Park.	High Medium Medium Low High High Low

Current Situation	Desired Outcomes	Management Response	Priority
6.9 Management Operations and Other Uses Management trails in the reserve are maintained at Cat 9 fire vehicle standard as outlined in the Bushfire Coordinating Committee's Policy on Fire Trails. Vegetation regrowth at the sides of management trails is controlled. Transgrid access powerline easements in the reserve to carry out maintenance work. This access is undertaken in accordance with a Memorandum of Understanding. Off-road vehicle use and road and trail maintenance has the potential to impact on the crimson spider orchid. The park boundary lies on the mean high water mark of Burrinjuck Dam, although the water level is rarely at this point. The southern portion of the reserve is occasionally accessed by boat.	Management facilities and operations adequately serve management needs and have minimal impact. Existing non-park infrastructure is managed to minimise impacts on natural and cultural values.	6.9.1 Maintain the trails shown on the map for management purposes. 6.9.2 Provide information to NPWS and Transgrid staff about protecting the crimson spider orchid. 6.9.3 Maintain signage on management trails to restrict unauthorised access. 6.9.4 All watercraft access to the reserve is in accordance with the Policy Statement for Watercraft Management: ▪ Watercraft to be launched from formed roads or ramps only, unless the craft can be carried to and from the water; and ▪ Watercraft are not to be moored to vegetation.	High High High Low

PRIORITIES

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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APPENDIX 1 FAUNA SPECIES LIST FOR BURRINJUCK NATURE RESERVE

Scientific Name	Common Name	Status
Amphibians		
Crinia parinsignifera	Eastern Sign-bearing Froglet	Protected
Crinea signifera	Common Eastern Froglet	Protected
Limnodynastes tasmaniensis	Spotted Grass Frog	Protected
Litoria leseuri	Leseur's Frog	Protected
Pseudophryne bibronii	Bibron's Toadlet	Protected
Reptiles		
Amphibolurus nobbi	Nobbi Lashtail	Protected
Carlia tetradactyla	Southern Rainbow Skink	Protected
Christinus marmoratus	Marbled Southern Gecko	Protected
Ctenotus robustus	Striped Skink	Protected
Ctenotus taeniolatus	Copper-tailed Ctenotus	Protected
Egernia saxatilis	Black Crevice-skink	Protected
Emydura macquarii	Murray Short-necked Turtle	Protected
Eulamprus heatwolei	Warm-temperate Water-skink	Protected
Hemiergis decresiensis	Three-toed Earless Skink	Protected
Niveoscincus coventryi	Southern Forest Cool-skink	Protected
Pogona barbata	Eastern Bearded Dragon	Protected
Pseudechis porphyriacus	Red-bellied Black Snake	Protected
Birds		
Acanthiza chrysorrhoa	Yellow-rumped Thornbill	Protected
Acanthiza lineata	Striated Thornbill	Protected
Acanthiza nana	Yellow Thornbill	Protected
Acanthiza pusilla	Brown Thornbill	Protected
Acanthiza reguloides	Buff-rumped Thornbill	Protected
Acanthorhynchus tenuirostris	Eastern Spinebill	Protected
Accipiter fasciatus	Brown Goshawk	Protected
Accipter cirrocephalus	Collared Sparrowhawk	Protected
Aegotheles cristatus	Australian Owlet-nightjar	Protected
Alcedo azurea	Azure Kingfisher	Protected
Alisterus scapularis	Australian King Parrot	Protected
Anas castanea	Chestnut Teal	Protected
Anas gracilis	Grey Teal	Protected
Anas rhynchotis	Australasian Shoveler	Protected
Anas superciliosa	Pacific Black Duck	Protected

Scientific Name	Common Name	Status
Anthochaera carunculata	Red Wattlebird	Protected
Anthus australis	Australian Pipit	Protected
Aquila audax	Wedge-tailed Eagle	Protected
Ardea alba	Great Egret	Protected
Ardea intermedia	Intermediate Egret	Protected
Ardea novaehollandiae	White-faced Heron	
Ardea pacifica	White-necked Heron	Protected
Artamus cinereus	Black-faced Woodswallow	Protected
Artamus cyanopterus	Dusky Woodswallow	Protected
Artamus personatus	Masked Woodswallow	Protected
Artamus superciliosus	White-browed Woodswallow	Protected
Ashiga melanogaster	Darter	Protected
Aythya australia	Hardhead	Protected
Biziura lobata	Musk Duck	Protected
Cacatua galerita	Sulphur-crested Cockatoo	Protected
Cacomantis flabelliformis	Fan-tailed Cuckoo	Protected
Calidris acuminata	Sharp-tailed Sandpiper	Protected
Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable
Calyptorhynchus funereus	Yellow-tailed Black-cockatoo	Protected
Chalcites basalis	Horsfield's Bronze-cuckoo	Protected
Chalcites lucidus	Shining Bronze-cuckoo	Protected
Chenonetta jubata	Australian Wood Duck	Protected
Cincloramphus cruralis	Brown Songlark	Protected
Cincloramphus mathewsi	Rufous Songlark	Protected
Cinclosoma punctatum	Spotted Quail-thrush	Protected
Climacteris erythrops	Red-browed Treecreeper	Protected
Climacteris picumnus	Brown Treecreeper	Vulnerable
Colluricincla harmonica	Grey Shrike-thrush	Protected
Coracina maxima	Ground Cuckoo-shrike	Protected
Coracina novaehollandiae	Black-faced Cuckoo-shrike	Protected
Corcorax melanorhamphos	White-winged Chough	Protected
Cormobates leucophaeus	White-throated Treecreeper	Protected
Corvus coronoides	Australian Raven	Protected
Corvus mellori	Little Raven	Protected
Corvus spp.	Unidentified Corvid	Protected
Coturnix pectoralis	Stubble Quail	Protected
Cracticus nigrogularis	Pied Butcherbird	Protected
Cracticus torquatus	Grey Butcherbird	Protected
Cuculus pallidus	Pallid Cuckoo	Protected

Scientific Name	Common Name	Status
Cygnus atratus	Black Swan	Protected
Dacelo novaeguineae	Laughing Kookaburra	Protected
Daphoenositta chrysoptera	Varied Sittella	Protected
Dicaeum hirundinaceum	Mistletoebird	Protected
Dromaius novaehollandiae	Emu	Protected
Egretta garzetta	Little Egret	Protected
Egretta novaehollandiae	White-faced Heron	Protected
Elanus axillaris	Black-shouldered Kite	Protected
Elseyornis melanops	Black-fronted Dotterel	Protected
Entomyzon cyanotis	Blue-faced Honeyeater	Protected
Eolophus roseicapillus	Galah	Protected
Eopsaltria australis	Eastern Yellow Robin	Protected
Epthianura albifrons	White-fronted Chat	Protected
Erythrogonys cinctus	Red-kneed Dotterel	Protected
Eurostomus orientalis	Dollarbird	Protected
Falco berigora	Brown Falcon	Protected
Falco cenchroides	Nankeen Kestrel	Protected
Falco longipennis	Australian Hobby	Protected
Falco peregrinus	Peregrine Falcon	Protected
Falcunculus frontatus	Eastern Shrike-tit	Protected
Fulica atra	Eurasian Coot	Protected
Gallinula tenebrosa	Dusky Moorhen	Protected
Geopelia placida	Peaceful Dove	Protected
Gerygone olivacea	White-throated Gerygone	Protected
Glossopsitta pusilla	Little Lorikeet	Protected
Grallina cyanoleuca	Magpie-lark	Protected
Gymnorhina tibicen	Australian Magpie	Protected
Haliaeetus leucogaster	White-bellied Sea-eagle	Protected
Haliastur sphenurus	Whistling Kite	Protected
Hieraaetus morphnoides	Little Eagle	Protected
Hirundapus caudacutus	White-throated needletail	Protected
Hirundo neoxena	Welcome Swallow	Protected
Lalage tricolor	White-winged Triller	Protected
Larus novaehollandiae	Silver Gull	Protected
Leucosarcia melanoleuca	Wonga Pigeon	Protected
Lichenostromus chrysops	Yellow-faced Honeyeater	Protected
Lichenostromus fuscus	Fuscous Honeyeater	Protected
Lichenostromus leucotis	White-eared Honeyeater	Protected
Lichenostromus melanops	Yellow-tufted Honeyeater	Protected

Scientific Name	Common Name	Status
Lichenostromus penicillatus	White-plumed Honeyeater	Protected
Lichenostromus virescens	Singing Honeyeater	Protected
Malurus cyaneus	Superb Fairy-wren	Protected
Manorina melanocephala	Noisy Miner	Protected
Melanodryas cucullata	Hooded Robin	Vulnerable
Melithreptus brevirostris	Brown-headed Honeyeater	Protected
Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable
Melithreptus lunatus	White-naped Honeyeater	Protected
Melopsittacus undulatus	Budgerigar	Protected
Menura novaehollandiae	Superb Lyrebird	Protected
Merops ornatus	Rainbow Bee-eater	Protected
Microeca fascinans	Jacky Winter	Protected
Milvus migrans	Black Kite	Protected
Mirafra javanica	Horsfield's Bushlark	Protected
Myiagra cyanoleuca	Satin Flycatcher	Protected
Myiagra inquieta	Restless Flycatcher	Protected
Myiagra rubecula	Leaden Flycatcher	Protected
Neochmia temporalis	Red-browed Finch	Protected
Neophema pulchella	Turquoise Parrot	Vulnerable
Ninox boobook	Southern Boobook	Protected
Ninox connivens	Barking Owl	Vulnerable
Ninox strenua	Powerful Owl	Vulnerable
Nycticorax caledonicus	Nankeen Night Heron	Protected
Nymphicus hollandicus	Cockatiel	Protected
Ocyphaps lophotes	Crested Pigeon	Protected
Oriolus sagittatus	Olive-backed Oriole	Protected
Pachycephala olivacea	Olive Whistler	Vulnerable
Pachycephala pectoralis	Golden Whistler	Protected
Pachycephala rufiventris	Rufous Whistler	Protected
Pardalotus punctuata	Spotted Pardalote	Protected
Pardalotus striatus	Striated Pardalote	Protected
Pelecanus conspicillatus	Australian Pelican	Protected
Petrochelidon ariel	Fairy Martin	Protected
Petrochelidon nigricans	Tree Martin	Protected
Petroica boodang	Scarlet Robin	Protected
Petroica goodenovii	Red-capped Robin	Protected
Petroica phoenicia	Flame Robin	Protected
Petroica rosea	Rose Robin	Protected

Scientific Name	Common Name	Status
Phalacrocorax carbo	Great Cormorant	Protected
Phalacrocorax melanoleucos	Little Pied Cormorant	Protected
Phalacrocorax sulcirostris	Little Black Cormorant	Protected
Phalacrocorax varius	Pied Cormorant	Protected
Phaps chalcoptera	Common Bronzewing	Protected
Philemon citreogularis	Little Friarbird	Protected
Philemon corniculatus	Noisy Friarbird	Protected
Phylidonyris pyrrhoptera	Crescent Honeyeater	Protected
Phylodonyris novaehollandiae	New Holland Honeyeater	Protected
Platalea flavipes	Yellow-billed Spoonbill	Protected
Platalea regia	Australian White Ibis	Protected
Platycercus adscitus eximius	Eastern Rosella	Protected
Platycercus elegans	Crimson Rosella	Protected
Podargus strigoides	Tawny Frogmouth	Protected
Poliocephalus poliocephalus	Hoary-headed Grebe	Protected
Polytelis swainsonii	Superb Parrot	Protected
Pomatostomus superciliosus	White-browed Babbler	Protected
Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable
Porphyrio porphyrio	Purple Swamphen	Protected
Psephotus haematonotus	Red-rumped Parrot	Protected
Psophodes olivaceus	Eastern Whipbird	Protected
Ptilonorhynchus violaceus	Satin Bowerbird	Protected
Pyrrholaemus sagittatus	Speckled Warbler	Vulnerable
Rhipidura albiscapa	Grey Fantail	Protected
Rhipidura leucophrys	Willie Wagtail	Protected
Rhipidura rufifrons	Rufous fantail	Protected
Sericornis frontalis	White Browed Scrubwren	Protected
Smicrornis brevirostris	Weebill	Protected
Stagonopleura guttata	Diamond Firetail	Vulnerable
Strepera graculina	Pied Currawong	Protected
Strepera versicolor	Grey Currawong	Protected
Struthidea cinerea	Apostlebird	Protected
Tachybaptus novaehollandiae	Australasian Grebe	Protected
Tadorna tadornoides	Australian Shelduck	Protected
Taeniopygia bichenovii	Double-barred Finch	Protected
Taeniopygia guttata	Zebra Finch	Protected
Threskiornis spinicollis	Straw-necked Ibis	Protected
Todiramphus sanctus	Sacred Kingfisher	Protected

Scientific Name	Common Name	Status
Turdus merula	Blackbird	Protected
Tyto alba	Barn Owl	Protected
Vanellus miles	Masked Lapwing	Protected
Vanellus tricolor	Banded Lapwing	Protected
Zoothera sp.	Unidentified ground thrush	Protected
Zosterops lateralis	Silvereye	Protected
Mammals		
Acrobates pygmaeus	Feathertail Glider	Protected
Antechinus stuartii	Brown Antechinus	Protected
Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable
Tachyglossus aculeatus	Short-beaked echidna	Protected
Macropus giganteus	Eastern Grey Kangaroo	Protected
Macropus robustus	Common Wallaroo	Protected
Macropus rufogriseus	Red-necked Wallaby	Protected
Miniopteris schreibersii oceanensis	Eastern Bentwing Bat	Vulnerable
Nyctophylus geoffroyi	Lesser Long-eared Bat	Protected
Nyctophylus gouldi	Gould's Long-eared Bat	Protected
Ornithorhynchus aculeatus	Platypus	Protected
Petaurus australis	Yellow-bellied Glider	Vulnerable
Petaurus breviceps	Sugar Glider	Protected
Petaurus norfolcensis	Squirrel Glider	Vulnerable
Petauroides volans	Greater Glider	Protected
Pseudocheirus peregrinus	Common Ringtail Possum	Protected
Rattus fuscipes	Bush Rat	Protected
Rhinolophus megaphyllus	Eastern Horseshoe Bat	Protected
Tachyglossus aculeatus	Short-beaked Echidna	Protected
Tadarida australis	White-striped Freetail Bat	Protected
Trichosurus vulpecula	Common Brushtail Possum	Protected
Vespadalus sp.		Protected
Vombatus ursinus	Common Wombat	Protected
Wallabia bicolor	Swamp Wallaby	Protected