

Plan of Management



Bullawa Creek State Conservation Area

Bullawa Creek Community Conservation Area Zone 3

BULLAWA CREEK STATE CONSERVATION AREA

Community Conservation Area Zone 3

PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

November 2012

This plan of management was adopted by the Minister for the Environment on 7 November 2012.

Acknowledgments

This plan of management is based on a draft plan prepared by staff of the Northern Plains Region of the NSW National Parks and Wildlife Service (NPWS), part of the Office of Environment and Heritage, Department of Premier and Cabinet.

The NPWS acknowledges that this reserve is in the traditional country of the Gamileroi people.

Cover photograph: Jessica Stokes, NPWS.

For additional information or any inquiries about this reserve or this plan of management, contact the NPWS Narrabri Area Office, 100 Maitland St (PO Box 72), Narrabri 2390 or by telephone on 6792 7300.

Published by:
Office of Environment and Heritage
59–61 Goulburn Street
PO Box A290
Sydney South 1232

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ISBN 978 1 74293 933 9

OEH 2012/0935

Printed on recycled paper

FOREWORD

Bullawa Creek State Conservation Area covers 99 hectares and is located in the north-west plains region of NSW, approximately 10 kilometres east of Narrabri. It was reserved as a state conservation area (Community Conservation Area Zone 3) on 1st December 2005.

Bullawa Creek State Conservation Area forms part of a corridor of vegetation linking Mount Kaputar National Park to the east with the Pilliga forest reserves to the south. The corridor provides refuge for many species at the western edge of their range, and for ecosystems which have been heavily cleared elsewhere. Bullawa Creek State Conservation Area contains important habitat for declining woodland birds, small mammals and microbats, as well as a number of Aboriginal sites.

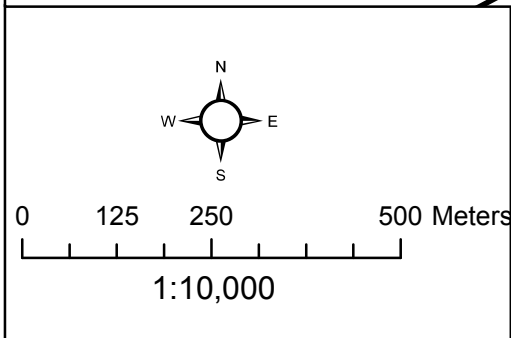
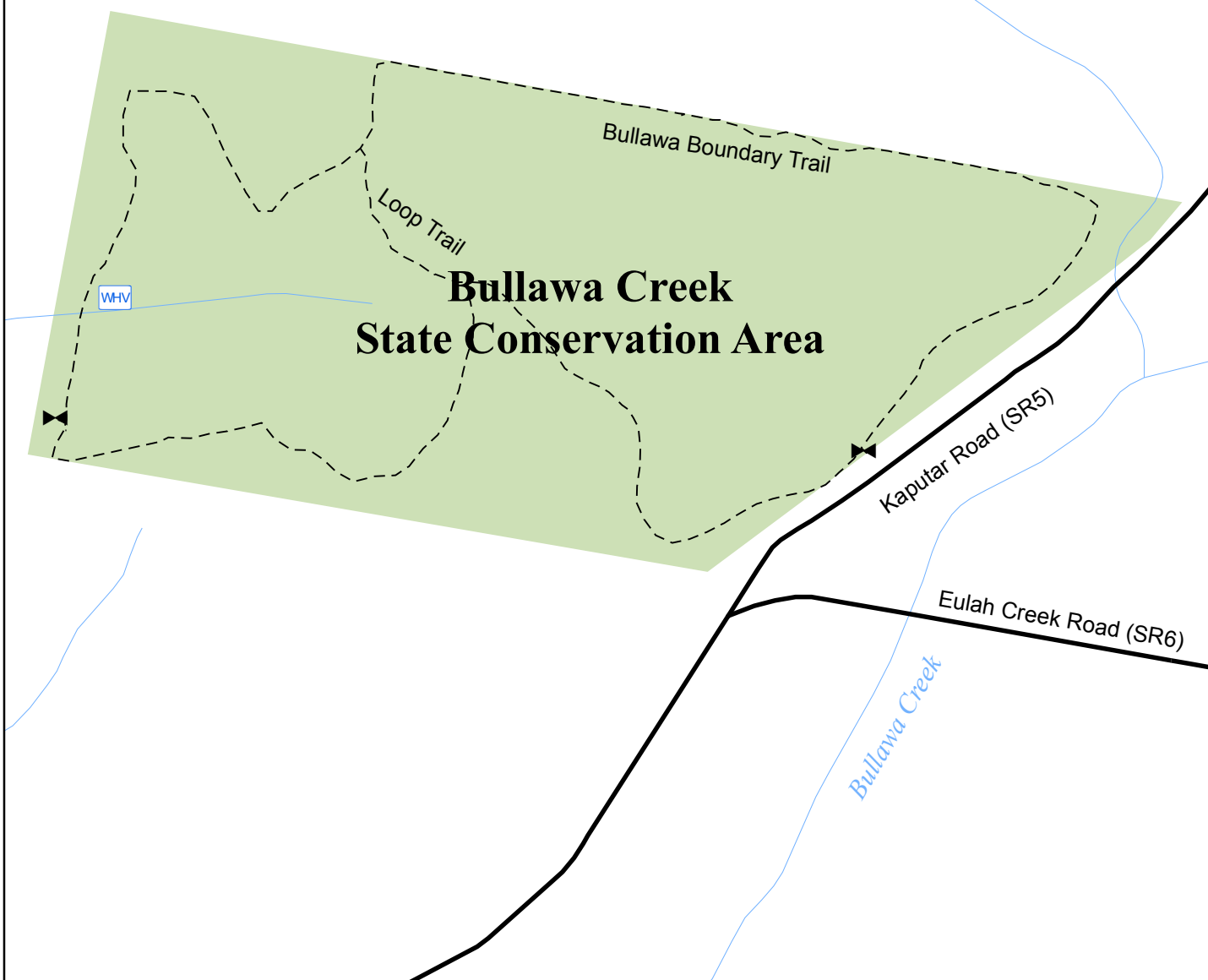
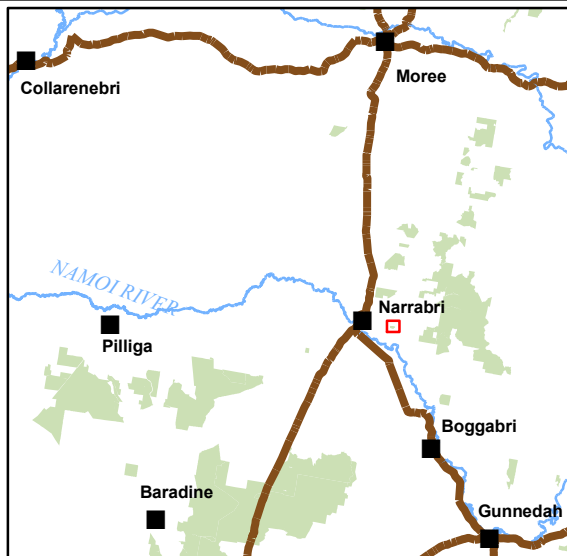
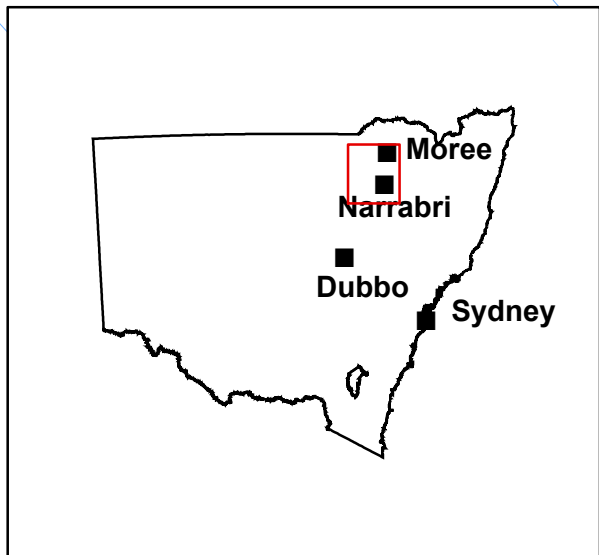
The New South Wales *National Parks and Wildlife Act 1974* requires that a plan of management be prepared for each state conservation area. A draft plan of management for Bullawa Creek State Conservation Area was placed on public exhibition from 20 May to 29 August 2011. The submissions received were carefully considered before adopting this plan.

The plan contains a number of actions to achieve the NSW 2021 goal to protect our natural environment, including the undertaking of fauna and flora surveys and the control of introduced plants and animals. It also provides for bushwalking and for cycling and horse riding on management trails.

This plan of management establishes the scheme of operations for Bullawa Creek State Conservation Area. In accordance with section 73B of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.



Robyn Parker MP
Minister for the Environment



Bullawa Creek State Conservation Area CCA Zone 3

- WHV Dam
- Gate
- Major road
- Sealed road - off park
- Management Trail
- Creeks
- Bullawa Creek SCA
- NPWS Estate

1. LOCATION, GAZETTAL AND REGIONAL CONTEXT

Bullawa Creek State Conservation Area (the reserve) is located in the north-west plains region of NSW, approximately 10 kilometres east of Narrabri. The 99 hectare reserve was gazetted as a state conservation area (Community Conservation Area Zone 3) on the 1st December 2005.

The reserve was formerly managed by Forests NSW as Bullawa Creek State Forest and was identified as having conservation value during a comprehensive regional assessment of the Nandewar and Brigalow Belt South Bioregions. The assessment provided the necessary information to support major additions to the reserve system, including the establishment of Bullawa Creek State Conservation Area.

Prior to dedication the reserve was subject to selective logging and stock grazing. Grazing was phased out over 18 months from December 2005.

The reserve's name is derived from the surrounding locality and the creek which runs adjacent to the reserve.

The reserve forms part of a corridor of vegetation, on private and public lands, linking Mount Kaputar National Park to the east with the Pilliga forest reserves to the south. The corridor provides refuge for many species at the western edge of their range, and for ecosystems which have been heavily cleared elsewhere.

The area surrounding the reserve is characterised by rural subdivisions and mixed farming. The reserve is directly bounded by private lands and Kaputar Road (SR5).

The reserve is included in a current petroleum exploration licence and mineral extraction application. Mineral extraction is permissible, subject to environmental assessment and approvals, in a state conservation area.

The reserve is within the geographical area of the Narrabri Shire, the Namoi Catchment Management Authority, and the Narrabri Local Aboriginal Land Council.

2. MANAGEMENT CONTEXT

2.1 LEGISLATIVE AND POLICY FRAMEWORK

The management of community conservation areas is in the context of the legislative and policy framework, primarily the *National Parks and Wildlife Act (1974)* (NPW Act) and Regulations, the Community Conservation Agreement developed under the *Brigalow and Nandewar Community Conservation Area Act 2005* (BNCCA Act), the *Threatened Species Conservation Act 1995* (TSC Act), and the policies of the National Parks and Wildlife Service (NPWS).

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

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

2.2 MANAGEMENT PURPOSES AND PRINCIPLES

A new class of reserve, called a community conservation area, was created in 2005. Community conservation areas are divided into four zones, with zone 3 being the equivalent of a state conservation area.

State conservation areas are reserved under the NPW Act to protect and conserve areas that contain significant or representative ecosystems, landforms or natural phenomena or places of cultural significance; that are capable of providing opportunities for sustainable visitor use and enjoyment, the sustainable use of buildings and structures, or research; and that are capable of providing opportunities for uses permitted under other provisions of the Act.

Under the Act (section 30G), state conservation areas are managed to:

- conserve biodiversity, maintain ecosystem functions, protect natural phenomena and maintain natural landscapes;
- conserve places, objects and features of cultural value;
- provide for the undertaking of uses permitted under other provisions of the NPW Act (including uses permitted under section 47J such as mineral exploration and

mining), having regard to the conservation of the natural and cultural values of the state conservation area;

- provide for sustainable visitor use and enjoyment that is compatible with conservation of the area's natural and cultural values and with uses permitted in the area;
- provide for sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to conservation of the area's natural and cultural values and with other uses permitted in the area; and
- provide for appropriate research and monitoring.

The NPW Act requires a review of the classification of state conservation areas every 5 years in consultation with the Minister administering the *Mining Act 1992*. In the long term it is intended the reserve will become a national park, and so management will also be guided by the management principles for national parks where possible.

2.3 STATEMENT OF SIGNIFICANCE

The reserve is considered to be of local and regional significance for:

- Habitat Values: The reserve provides suitable habitat for a number of declining woodland bird, small mammal and microbat species.
- Aboriginal Heritage: A number of Aboriginal sites have been recorded within the reserve. These include grinding grooves and ochre.
- Research/ Education: The reserve's proximity to town provides opportunities for use by local school groups.

2.4 SPECIFIC MANAGEMENT DIRECTIONS

In addition to the general principles for the management of state conservation areas (refer section 2.2), the management of Bullawa Creek State Conservation Area will focus on the protection of vegetation communities, the protection of Aboriginal heritage and encouraging the use of the reserve for educational purposes.

Major strategies to achieve these objectives are:

- protection of natural values from weeds, feral animals and wildfire;
- protection of Aboriginal sites in consultation with the Aboriginal community, including facilitating access to the sites by members of the local Aboriginal community;
- research into the reserve's natural and cultural values, particularly establishing the reserve's importance as a refuge and possible impacts by neighbouring land uses; and
- provision of opportunities for educational and low impact nature-based recreation.

3. VALUES

The location, landforms and plant and animal communities of an area have determined how it has been used and valued. Both Aboriginal and non-Aboriginal people place values on natural areas, including aesthetic, social, spiritual and recreational values. These values may be attached to the landscape as a whole or to individual components, for example to plant and animal species used by Aboriginal people. This plan of management aims to conserve both natural and cultural values. For reasons of clarity and document usefulness, various aspects of natural heritage, cultural heritage, threats and on-going use are dealt with individually, but their inter-relationships are recognised.

3.1 GEOLOGY, LANDSCAPE AND HYDROLOGY

Bullawa Creek State Conservation Area is on the lower slopes of the Kaputar volcanic complex. It is situated on a low, sandstone rise above the Bullawa Creek floodplain at the base of the Nandewar Range and altitude varies between approximately 250 and 300 metres above sea level across the reserve.

The reserve is located within the Eulah Creek sub-catchment of the Namoi catchment. The reserve contains ephemeral drainage lines only. The largest of these drainage lines has been dammed to form a water storage point.

The reserve is contained wholly within the Liverpool Plains Province of the Brigalow Belt South Bioregion. The geology is predominantly Jurassic fine-grained sediments of the Great Australian – Surat Basin comprised of thinly bedded lithic-labile sandstone interbedded with siltstone and mudstone. The eastern and western boundaries are dominated by Quaternary alluvium incorporating gravel, sand, siltstone and clay, which is more common to the area. The soils are massive red and yellow earths (MDBC, 1999).

3.2 NATIVE PLANTS

The reserve contains 99 hectares of modified Western Slopes Dry Sclerophyll Forests (Keith, 2004). It forms an important wildlife corridor with other remnant vegetation on private property, riparian corridors and Mount Kaputar National Park and Deriah Aboriginal Area.

The vegetation is predominantly woodland characterised by three associations:

- white cypress pine (*Callitris glaucophylla*) - silver-leaved ironbark (*Eucalyptus melanophloia*) (Proportion of reserve 95%);
- dirty gum (*Eucalyptus chloroclada*) - white bloodwood (*Corymbia trachyphloia*) (3.4%); and
- wilga (*Geijera parviflora*) - bulloak (*Allocasuarina luehmannii*) (0.8%) (Hunter, 2007).

A floristic survey undertaken in August 2007 recorded 131 vascular plant species in the reserve (Hunter, 2007). Vegetation is dominated by white cypress pine (*Callitris glaucophylla*), wilga (*Geijera parviflora*), silver-leaved ironbark (*Eucalyptus melanophloia*), and white box (*Eucalyptus albens*). The understorey consists of herbs and grasses, such as narrow rock fern (*Chelianthes sieberi*), native carrot (*Daucus glochidiatus*), hairy rock fern (*Chelianthes distans*), blue trumpet (*Brunoniella australis*), rough speargrass (*Autrostipa scabra*) with a shrub layer of sticky hopbush (*Dodonaea viscosa*) with some Dean's wattle (*Acacia deanei*) (Hunter, 2007).

No threatened plants have been recorded within the reserve.

Hunter compared floral species richness in Bullawa Creek State Conservation Area to other reserves in western NSW. Richness was found to be slightly higher than other reserves within the region and similar to other reserves within the immediate area (Killarney State Conservation Area, Moema National Park, Couradda National Park).

The reserve has a low percentage of old-growth trees, with 89% of trees measured less than 30 centimetres in diameter at breast height. This is consistent with the reserve's history as a state forest. The largest trees in the reserve are white box and bimple box (*Eucalyptus populnea*).

The most significant threats to vegetation structure and health are incursions by stock and weed infestations (see section 6).

John Hunter's survey plots have been recorded and marked in the field to establish permanent monitoring sites.

3.3 NATIVE ANIMALS

The reserve provides habitat for a variety of fauna. Fauna records within the reserve are limited to incidental sightings and include 4 species of frogs, 2 macropods and 13 species of birds. Undertaking fauna surveys is an identified action within this plan.

Nine woodland birds listed as vulnerable in the TSC Act have been recorded in the vicinity of the reserve and may be present in the reserve. The preservation of habitat for woodland birds is a key strategy in the Threatened Species Priority Action Statement. In addition the sandstone outcrops represent potential habitat for numerous insectivorous bat species and small mammal species.

Areas surrounding the reserve have been substantially modified by grazing and residential development, increasing the value of this remnant habitat and wildlife corridor. The size of the reserve and its fragmentation from other areas of natural bush is a major threat to its habitat values.

3.4 ABORIGINAL AND HISTORIC 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.

The reserve is within the traditional country of the Gamilaroi Aboriginal nation (also spelt as Gamilaraay, Gomeroi and Kamileroi) and within the area administered by the Narrabri Local Aboriginal Land Council.

A cultural heritage survey was undertaken in the reserve in February 2010. Aboriginal grinding grooves and ochre were found along the sandstone ridge and in the creek beds within the reserve. Numerous sites have also been recorded within the flood zones of Bullawa Creek and the neighbouring Eulah Creek valley. All sites in the reserve are in a relatively stable condition.

The reserve is located within the Parish Tippereena, County Nandewar. The lot first appears as a Reserve for Public Purposes in 1893 and was first recorded as Bullawa Creek State Forest on the 1930 Parish map. It has been used in the past by a number of leaseholders for water rights and later for grazing under permit.

Sandstone from an abandoned quarry in the south-east of the reserve provided the stone for the initial kerb and guttering within Narrabri.

3.5 VISITOR USE, EDUCATION AND RESEARCH

Under Forests NSW management, the reserve was not accessible to the public. There has therefore been little public use of the area.

Suitable uses of the reserve are low impact activities such as walking and cycling on existing tracks.

Horse riding on management trails is allowed. However, if it is determined that this activity is causing significant environmental impact then its continued permissibility will be reviewed.

Nearby Mount Kaputar National Park provides for camping, accommodation, bushwalking and sightseeing.

4. ISSUES

4.1 WEEDS AND PEST ANIMALS

Ten percent of flora species recorded in the reserve are introduced, most of which are broadleaf herbs such as thistles and dandelions. The most significant weeds recorded in the reserve are mother-of-millions (*Bryophyllum delagoense*) and prickly pear (*Opuntia stricta*) (Hunter, 2007). Treatment of mother-of-millions is a priority due to its potential for spread and possible impacts on neighbouring cattle.

Feral cats (*Felis catus*) and foxes (*Vulpes vulpes*) are the main vertebrate pests of concern within the reserve. Pigs (*Sus scrofa*) have not been recorded within the reserve but there is potential for invasion from surrounding land-holdings.

Stock incursions from neighbouring properties have been recorded.

The reserve's proximity to houses limits the use of poisons for pest management.

The Northern Plains Region has prepared a pest management strategy (DECC 2008) which includes priorities and actions to control weeds and pest animals on parks and reserves within the Region. This strategy is currently being revised.

4.2 FIRE

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

Fire is a natural feature of many environments and is essential for the survival of some plant communities. However, inappropriate fire regimes can lead to loss of particular plant and animal species and communities, and high frequency fires have been listed as a key threatening process under the TSC Act.

The risk of fire within the reserve is low. There are no records of a fire event within the reserve and long-term neighbours have no recollection of one within the last 40 years.

A Fire Management Strategy has been prepared for the reserve (DECC 2009). The Fire Management Strategy outlines key assets within and adjoining the reserve including sites of natural and cultural heritage value, fire management zones, and fire control advantages such as management trails and water supply points.

Any proposed hazard reduction programs, ecological burning proposals and management trail works are to be submitted annually to the Narrabri/ Moree Bush Fire Management Committee.

4.3 ISOLATION AND FRAGMENTATION

The area surrounding Bullawa Creek State Conservation Area has been extensively cleared, which has resulted in a high loss of biodiversity and fragmentation of habitat in the region. Long term conservation of biodiversity depends upon the protection, enhancement and connection of remaining habitat across the landscape, incorporating vegetation remnants on both public and private lands. Nearby vegetated areas contribute to the habitat values of the reserve and provide ecological corridors to other vegetated areas. The reserve forms part of a vital corridor between Mount Kaputar National Park and the Pilliga forests. Maintaining the integrity of the remaining habitat within the reserve and, where possible, linking this to adjacent areas of vegetation to facilitate wildlife corridors is important in ensuring long term viability of the reserve's biological values.

The small nature of the reserve makes it susceptible to a single catastrophic event. Further fragmentation should be avoided.

4.4 CLIMATE CHANGE

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

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

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

5. REFERENCES

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- Keith, D. (2004) *Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT*. Department of Environment and Conservation NSW, Hurstville.
- MDBC (1999) *Geology of the Murray-Darling Basin - simplified lithostratigraphic groupings*. GIS Data Layer

6. IMPLEMENTATION

Current Situation	Desired Outcomes	Management Response	Priority*
<p>6.1 On-Park Ecological Conservation</p> <p>The reserve has been selectively logged. There are very limited old growth elements.</p> <p>Vegetation plots were established by Hunter in 2007 as part of the initial vegetation survey of the reserve.</p> <p>No surveys have been undertaken of the native fauna present in the reserve. One threatened woodland bird species has been recorded on the reserve and others recorded nearby.</p> <p>Sheet and gully erosion occurs in sections of the reserve, especially where the soil has been disturbed.</p> <p>Climate change may significantly affect biodiversity by changing the population size and distribution of species, modifying species composition, and altering the geological extent of habitats and ecosystems.</p>	<p>Native plant and animal species and communities are conserved.</p> <p>Structural diversity and habitat values are restored in areas subject to past logging and grazing practices.</p> <p>Managed actions are based on scientific data.</p> <p>The effects of climate change on natural systems are reduced.</p>	<p>6.1.1 Undertake fauna surveys to determine species present in the reserve, especially the presence of threatened species, to improve reserve management.</p> <p>6.1.2 Resurvey the 9 permanent vegetation plots every 5 years, including biometric surveys to determine possible changes since the removal of forestry and grazing activities.</p> <p>6.1.3 Monitor erosion on management trails and undertake remedial actions if needed to minimise erosion.</p> <p>6.1.4 Implement relevant strategies in the Priorities Action Statement and recovery plans for threatened species found to be present on the reserve.</p> <p>6.1.5 Continue existing fire, pest and weed management programs to increase the reserve's ability to cope with future disturbances, including climate change.</p> <p>6.1.6 Encourage research into the ecological changes since the cessation of logging and grazing.</p>	<p>High</p> <p>Medium</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>

Current Situation	Desired Outcomes	Management Response	Priority*
<p>6.2 Cultural Heritage</p> <p>A cultural heritage survey of the reserve was undertaken in February 2010.</p> <p>A number of Aboriginal sites have been recorded within the reserve, primarily grinding grooves. Threats include weathering and possible disturbance by machinery undertaking road works.</p> <p>The reserve was also used for logging and grazing, and contains an old quarry.</p> <p>There is little documentation regarding the cultural values of the reserve or historic use.</p>	<p>Aboriginal places and values are identified and protected.</p> <p>Aboriginal people are involved in management of the Aboriginal cultural values of the reserve.</p> <p>Negative impacts on Aboriginal and historic heritage values are stable or diminishing.</p> <p>Understanding of the cultural values of the reserve is improved.</p>	<p>6.2.1 Consult and involve the Narrabri Local Aboriginal Land Council and local Aboriginal organisations in the management of Aboriginal sites, places and values, including interpretation of places or values.</p> <p>6.2.2 Undertake an archaeological survey and cultural assessment prior to all works with the potential to impact on Aboriginal or historic sites and places.</p> <p>6.2.3 Encourage further research into the Aboriginal heritage values of the reserve.</p> <p>6.2.4 Record any historic sites found, assess for heritage value, and retain in situ.</p> <p>6.2.5 Interview long-term residents of the area to enhance knowledge of the heritage values of the area.</p>	<p>High</p> <p>Ongoing</p> <p>Low</p> <p>Medium</p> <p>Low</p>

Current Situation	Desired Outcomes	Management Response	Priority*
<p>6.3 Visitor Use and Services</p> <p>The reserve provides opportunities for low key recreation and for environmental education and nature appreciation.</p> <p>As the reserve is relatively small further fragmentation is to be avoided.</p> <p>A variety of visitor facilities and opportunities are provided at nearby Mount Kaputar National Park.</p>	<p>Visitor use is appropriate and ecologically sustainable.</p>	<p>6.3.1 Bushwalking, and cycling on management trails, is allowed. Driving on management trails (except for management purposes, refer section 6.7), use of bicycles off roads/trails, camping and fires will not be permitted.</p> <p>6.3.2 Horse riding on management trails is allowed. However, if it is determined that this activity is causing significant environmental impact then its continuation will be reviewed.</p> <p>6.3.3 Interpretive signage may be constructed along existing management trails.</p> <p>6.3.4 No other visitor facilities will be constructed as the reserve is of limited size and further fragmentation is to be avoided.</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>
<p>6.4 Community Programs and Education</p> <p>Promotion of community understanding and appreciation of the conservation values of the reserve is important for minimising damaging activities and maximising conservation outcomes.</p> <p>Given the reserve's proximity to town and its easy access there are opportunities to foster relationships with local schools.</p>	<p>The local community is aware of the significance of the reserve and of reserve management programs.</p>	<p>6.4.1 Establish contact with local schools and encourage development of education programs using the reserve.</p> <p>6.4.2 Community understanding of the reserve and relevant programs will be undertaken as part of a wider education and community relations strategy across the Northern plains region.</p>	<p>Medium</p> <p>Medium</p>

Current Situation	Desired Outcomes	Management Response	Priority*
<p>6.5 Weeds and Pest Animals</p> <p>Feral animals identified in the reserve include foxes and cats. Pigs have not been recorded within the reserve but there is potential for invasion from surrounding land-holdings.</p> <p>Noxious weeds present include mother-of-millions and prickly pear. Chemical control is currently undertaken of these species.</p> <p>A Pest Management Strategy has been prepared for the Northern Plains Region.</p> <p>Occasional stock incursions from neighbouring properties have occurred. Pressure on stock fences is constant and fences require ongoing monitoring.</p>	<p>Introduced plants and animals are controlled and where possible eliminated.</p> <p>Negative impacts of weeds and pest animals on reserve values are stable or diminishing.</p> <p>Pest control programs are undertaken where appropriate in consultation with neighbours.</p>	<p>6.5.1 Manage introduced species in accordance with the Northern Plains Region Pest Management Strategy. Priority will be given to mother-of-millions and prickly pear.</p> <p>6.5.2 Seek the cooperation of neighbours in implementing weed and pest control programs. Seek to undertake control in cooperation with the Livestock Health and Pest Authority and Narrabri Shire Council.</p> <p>6.5.3 Monitor noxious and significant environmental weeds. Treat any new outbreaks where possible.</p> <p>6.5.4 Encourage maintenance of effective boundary fencing with neighbouring properties to prevent domestic stock incursions.</p>	<p>Ongoing</p> <p>Ongoing</p> <p>High</p> <p>Ongoing</p>

Current Situation	Desired Outcomes	Management Response	Priority*
<p>6.6 Fire Management</p> <p>Fire is a natural feature of many environments but inappropriate fire regimes can lead to loss of particular plant and animal communities. High frequency fires have been listed as a key threatening process under the TSC Act. Fire and associated suppression strategies could also damage cultural features and boundary fences and threaten neighbouring land.</p> <p>There are no known records of wildfire or prescribed burns within the area. Long-term neighbours do not recall any fire events within the last 40 years.</p> <p>Fire management operations are undertaken in cooperation with the Narrabri/ Moree Bush Fire Management Committee (BFMC) and local Rural Fire Service (RFS) brigades.</p> <p>A Reserve Fire Management Strategy has been prepared for the reserve.</p>	<p>Life, property and natural and cultural values are protected from fire.</p> <p>Fire regimes are appropriate for conservation of native plant and animal communities.</p> <p>Negative impacts of fire on natural and cultural heritage values are stable or diminishing.</p>	<p>6.6.1 Maintain boundary breaks along fence lines in accordance with the Fire Management Strategy.</p> <p>6.6.2 Participate in the Narrabri/ Moree BFMC. Maintain cooperative arrangements with local RFS brigades and fire control officers, other fire authorities and surrounding landowners in regard to fuel management and fire suppression.</p> <p>6.6.3 Manage the reserve to protect biodiversity in accordance with the identified fire regimes/thresholds in the Fire Management Strategy.</p>	<p>High</p> <p>Ongoing</p> <p>Ongoing</p>

Current Situation	Desired Outcomes	Management Response	Priority*
<p>6.7 Infrastructure and Maintenance</p> <p>A network of management trails exists to facilitate access for management activities.</p>	<p>Management facilities and operations adequately serve management needs and have minimal impact.</p> <p>Infrastructure and assets are routinely maintained.</p>	<p>6.7.1 Maintain the management trails shown on the map to NPWS standards. Where necessary upgrade drainage to reduce erosion potential.</p> <p>6.7.2 Gate and/or signpost management trails to restrict unauthorised access.</p> <p>6.7.3 Manage all tracks and trails within the reserve as management trails.</p> <p>6.7.4 Lock the vehicle entry gate off Kaputar Road and provide an entrance to allow access for walkers, cyclists and horse riders.</p>	<p>Ongoing</p> <p>High</p> <p>Ongoing</p> <p>Medium</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.

Ongoing is for activities that are undertaken on an annual basis or statements of management intent that will direct the management response if an issue that arises.

