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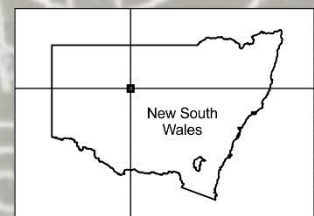
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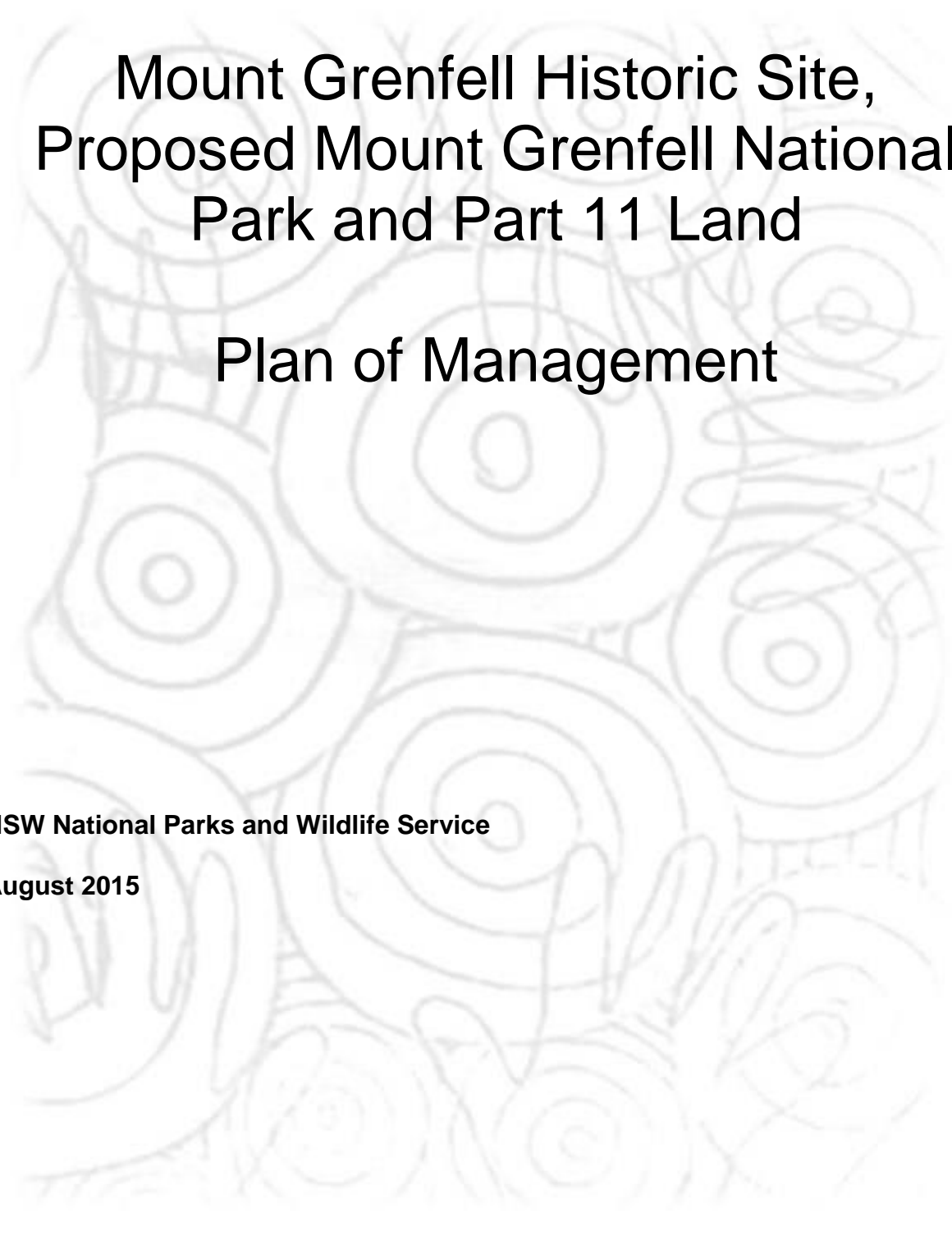
# Plan of Management



## Mount Grenfell Historic Site, Proposed Mount Grenfell National Park and Part 11 Land







# Mount Grenfell Historic Site, Proposed Mount Grenfell National Park and Part 11 Land

## Plan of Management

**NSW National Parks and Wildlife Service**

**August 2015**

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**This plan of management was adopted by the Minister for the Environment on 7 August 2015.**

**Acknowledgments:**

NSW National Parks and Wildlife Service (NPWS) acknowledges that the Mount Grenfell Historic Site, proposed Mount Grenfell National Park and Part 11 land are part of the traditional country of the Ngiyampaa Wangaaypuwan People.

This plan of management was prepared by the Mount Grenfell Board of Management with the support of NPWS, part of the Office of Environment and Heritage. The following reports also provided valuable information:

Beckett J, Donaldson T, Steadman B and Meredith S 2003, *Yapapunakirri, Lets track back: The Aboriginal world around Mount Grenfell*, Office of the Registrar, NSW.

Harris B, James D, Ohlsen E, Griffiths P and Barker C 2000, *Pilaarrkiyalu of the Cobar Peneplain: Ngiyampaa traditional uses of plants and animals*, NSW National Parks and Wildlife Service, Sydney.

**Artwork:** The front cover contains the Ngiyampaa logo by Norm Ohlsen and depicts a young man leaving his mark (*marra yappa*) at night time. This symbolises the art sites at the heart of Mount Grenfell. It also shows a belah tree which is an important tree in Ngiyampaa Country (*ngurrampaa*). The water mark on the cover and throughout the document was prepared by Sharron Ohlsen. The collage in the header comprises art prepared by children at the Mount Grenfell 10-year handback anniversary in July 2014.

For additional information or any inquiries about this park or this plan of management, contact the NPWS Griffith Area Office, 200 Yambil Street, Griffith, or by telephone on (02) 6966 8100.

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## Foreword

The Mount Grenfell Board of Management is proud to have completed this plan of management for the Mount Grenfell Historic Site, the proposed Mount Grenfell National Park and Part 11 land with NPWS.

It sets out a way forward in providing opportunities for people — Ngiyampaa and others to connect to Country and understand how important it is to care for land and be responsible in looking after it for the next generation.

The Mount Grenfell Historic Site is located about 70 kilometres north-west of Cobar in the dry back Country of the Cobar Peneplain — it is 'red Country'. The historic site was handed back to the Ngiyampaa Wangaaypuwan Aboriginal owners in July 2004 and was leased back to the Minister under Part 4A of the NSW *National Parks and Wildlife Act 1974* (NPW Act). It is one of only seven reserves managed as lands of cultural significance to Aboriginal people under Schedule 14 of the NPW Act.

In 2010, Mount Grenfell Station was purchased by the NSW Government for its significant cultural and natural values and to give more protection to the values of the historic site. It is anticipated that approximately 12,555 hectares of this land will soon be reserved as Mount Grenfell National Park.

The remaining 5765 hectares will be managed under Part 11 of the NPW Act. Although this land is not reserved under the NPW Act due to mineral interests, it will be managed jointly by the Board and NPWS. It is all Ngiyampaa Wangaaypuwan Country.

Completion of this plan of management is a significant landmark in the ongoing journey for Ngiyampaa People in reconnecting with Country and in working with NPWS to care for it.

This plan is hereby adopted.



Colin Clark  
**Mount Grenfell Board of  
Management Chair and  
Ngiyampaa traditional owner**



Mark Speakman  
**Minister for the Environment**



## **Ngiyampaa welcome and Board statement**

We want to welcome you in the **Ngiyampaa Wangaaypuwan** language. However, preparing this statement proved very challenging because the way Ngiyampaa people express themselves is not directly translatable into English.

The first paragraph in each section contains the messages the Board of Management wishes to convey but the words underlined cannot be translated as there is no equivalent in Ngiyampaa Wangaaypuwan. The phrases in language are then translated back to English to communicate Ngiyampaa expressions.

The Mount Grenfell Board of Management welcomes you in the Ngiyampaa Wangaaypuwan language:

### ***Yamakarra mayingkalkaa – How you going all you people?***

In the beginning the Spirit Beings formed *ngurrampaa* (camp-world) and gave our ancestors a set of rules to live and take care of Country by. Our ancestors passed down this knowledge through language, stories, songs, dance and ceremonies on how we are one with the spiritual landscape.

### **Marathal thingkaanka ngingu Thirramagaa gulimpuwan ngurrampaa maligu**

*Long time back great creatures made the hills and the waterholes, the camp-world*

### **Pungkaayankaay thirrpanha ngiyankarraa guthingu wagay wagkaaygu**

*The old people learnt to tell it straight-out through singing the song and dance*

### **Ngiyanu winanganha punkaayankaay wiinya ngurrampaanga**

*We all remember the old people living in the camp-world*

We identify ourselves in a number of ways: linguistically Ngemba in the north and Ngiyampaa in the south but we all speak the Wangaaypuwan way, through social structure, *thingkaa* (your 'meat') and geographically. These geographic features are Stone (*Karul*) Country, Nelia (*Nhiilyi*) Tree and Belah (*Pilaarr*) Tree and what we belong to (*kiyalu*) e.g. *Karul-kiyalu*: belonging to Stone Country. Each group has distinctive features but we are all one.

### **Marathal Pungkaayankaay Wangaaypuwan Mayingungiya yatta ngiyara**

*Long time back old people talked their word, the wangaay talk good*

### **Kalinalapaankiyalu ngiyanu Karulkiyalu Pilaarrkiyalu Nhiilyikiyalu**

*We all belong to the waterless Country: Stone People, Belah People and Nelia People*



It has been a long journey for our people to gain rights in our own Country and we acknowledge and thank those many people before us who fought for those rights. We also thank the NSW Parliament who passed the amendments to the National Parks and Wildlife Act unanimously to enable us to be re-engaged in the management of Country. Through this initiative Ngiyampaa descendants can again take part in the management of Mount Grenfell.

**Punkaayankaay kurraa yananhara maka mayi ngurrampaa**

*The old people travelled a long way to different people's Country*

**Winanganha thirrpanha maka mayinguniya guyngku ngiya**

*Hearing and learning different black people's word and white people's word*

**Thuni patharapa walantyalkay mayinguniya nginta ngurrampaanga**

*Sunrise came loneliness for their talk and need for their Country*

Our vision is to teach our young people to care for Country, empower us all to retain, celebrate and re-connect with our traditions in an inclusive way. This needs to be undertaken as a matter of urgency because it's now our responsibility to pass on this knowledge in accordance with our traditions and customs. Another important goal is to further involve ourselves in land management and make further acquisitions.

**Ngiyanu thaay Thalangu ngini thirrpai buraaygalaay wutha waratha maka mayinguniya yuwi**

*Today we all come here to learn like children, with ears cocked, the different blackfella word name*

**Ngurrampaanga thaay pipangu parumay maurampuwan mayinkalkaa mumpitya malu wiitya warangunpuwan winangaa**

*Come to the camp-world, pick up the paper with the spear, all people be still, be quiet with living spirit, listen*

**Ngiyanu Ngaathathaa mamarapa yapangu kiingku winangaypuwan**

*We all look for our own sake, to catch the tracks, for the heart to understand*

In the future the site will have bi-lingual interpretative signage and our tour guides trained to tell the stories in language (Ngiyampaa).

**Thalangu pipangu thalan thurrinyi mayinguniya guyangkuniya**

*Now the paper will be speared with Blackfella and Whitefella word*





## Contents

1.	Introduction.....	2
1.1	Location, gazettal and regional setting.....	2
1.2	Protecting an important place – statement of significance.....	5
1.3	Specific management directions.....	6
2.	Management purposes and principles.....	8
2.1	State government laws and NPWS policies.....	8
2.2	Joint management – managing the park together.....	8
2.3	The Mount Grenfell Board of Management.....	9
2.4	Principles for managing the park.....	10
3.	Ngiyampaa Wangaaypuwan cultural values.....	13
3.1	Language and story.....	13
3.2	Ngiyampaa Wangaaypuwan <i>ngurrampaa</i> .....	14
3.3	Water.....	17
3.4	Plants and animals.....	17
3.5	Rock art.....	18
3.6	Other Ngiyampaa cultural heritage.....	20
4.	Historic heritage.....	24
4.1	Settlement and land use.....	24
4.2	Historic buildings and structures.....	24
5.	Looking after <i>ngurrampaa</i> .....	28
5.1	Geology and landscape.....	28
5.2	Native plants.....	30
5.3	Native animals.....	35
5.4	Pest animals.....	38
5.5	Pest plants.....	41
5.6	Fire.....	42
5.7	Climate change.....	44
6.	Sharing <i>ngurrampaa</i> .....	47
6.1	Visitor facilities.....	47
6.2	Interpreting Ngiyampaa values for visitors.....	50
6.3	Group and commercial activities.....	51
6.4	Research.....	52
7.	Management operations and other uses.....	55
7.1	Park infrastructure and facilities.....	55





7.2 Third party interests .....58

8. Getting things done (implementing the plan) .....60

9. References .....66

**List of tables**

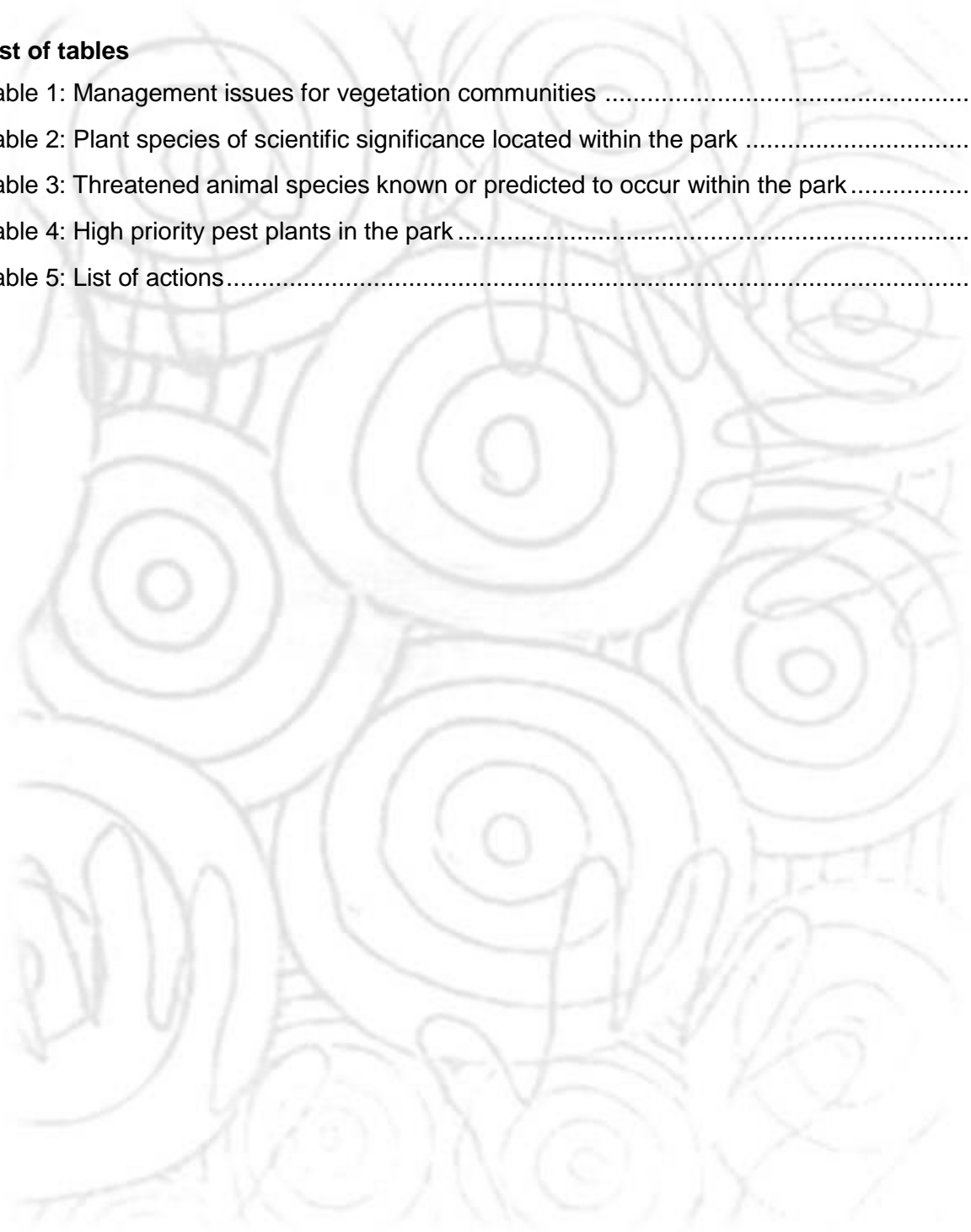
Table 1: Management issues for vegetation communities .....32

Table 2: Plant species of scientific significance located within the park .....34

Table 3: Threatened animal species known or predicted to occur within the park .....36

Table 4: High priority pest plants in the park .....41

Table 5: List of actions .....60



The background of the page is a light gray abstract pattern. It consists of numerous overlapping concentric circles and irregular, hand-drawn lines. Some circles have smaller circles inside them, creating a sense of depth and complexity. The lines are thin and vary in length and direction, some following the curves of the circles while others are more chaotic. The overall effect is a dense, textured, and somewhat organic-looking pattern.

# 1 INTRODUCTION



## 1. Introduction

### 1.1 Location, gazettal and regional setting

Mount Grenfell Historic Site, proposed Mount Grenfell National Park and the Part 11 land (formerly Mount Grenfell Station) are located within the Country or *ngurrampaa* of the Ngiyampaa Wangaaypuwan People, approximately 70 kilometres north-west of Cobar in western New South Wales (see Map 1). These parks are accessed by the Barrier Highway and Pulpulla Road, and have a combined area of 19,677 hectares.

In 1972, while still in private ownership, an area of 4209 hectares which included the land now known as the Mount Grenfell Historic Site, was proclaimed as a Protected Archaeological Area under the *National Parks and Wildlife Act 1967*. This was for the purpose of preserving, protecting and preventing damage to relics or Aboriginal places.

In 1979, a parcel of 1357 hectares was purchased from Mount Grenfell Station and proclaimed as Mount Grenfell Historic Site. In 1996 the land was added to Schedule 14 of the *National Parks and Wildlife Act 1974* (NPW Act) in recognition that this land was of cultural significance to the Ngiyampaa People and should become Aboriginal land. In 2004 the historic site became the second reserve in New South Wales to be handed back to Aboriginal owners and leased back to the Minister under Part 4A of the NPW Act.

The remainder of Mount Grenfell Station was purchased in 2010 for its significant cultural and natural values and for its value as a buffer to provide added protection to the historic site. This land is currently held by the Minister responsible for the administration of the NPW Act under Part 11. The majority of this area (approximately 12,555 hectares) is proposed to be reserved as Mount Grenfell National Park. The remainder (approximately 5765 hectares) will remain Part 11 land. Following mineral exploration, the Part 11 land may be reserved under the NPW Act. The proposed Mount Grenfell National Park surrounds the historic site. See Map 1.

The Mount Grenfell Historic Site, proposed Mount Grenfell National Park and Part 11 land are managed together by the Mount Grenfell Board of Management and NPWS. They are collectively referred to as 'the park' for the purposes of this plan.

Before the historic site was handed back to the Ngiyampaa Wangaaypuwan there was little appreciation of Aboriginal cultural values beyond the spectacular art sites. The Board of Management and NPWS now seek to manage the park in the context of the broader Ngiyampaa Wangaaypuwan cultural landscape (see Section 3.2).

The park is an important part of *ngurrampaa* (Country) for Ngiyampaa Wangaaypuwan. It provides resources which are of importance in people's lives: spiritually, as a physical connection to Creation stories and Creation beings; culturally, through providing opportunities for cultural practice; and physically, through the provision of food, water, shelter and resources. Mount Grenfell is of particular significance as it provides all of these facets of Ngiyampaa Wangaaypuwan life in one location and is associated with the creator *Biaime*.

The park is located within the semi-arid Cobar Penepplain Bioregion which covers 9.2 per cent of New South Wales. There is a close correlation between Ngiyampaa *ngurrampaa* and the Cobar Penepplain Bioregion. This bioregion is one of the least protected bioregions in New South Wales with only 2.6 per cent set aside for conservation (as at June 2012). The park therefore has high conservation value for both biodiversity and Aboriginal cultural heritage values.



Properties surrounding the park are held as Western Lands Leases and are principally sheep grazing and feral goat harvesting enterprises.

The park is located within the administrative areas of Cobar Shire Council, Western Local Land Services and Cobar Local Aboriginal Land Council.

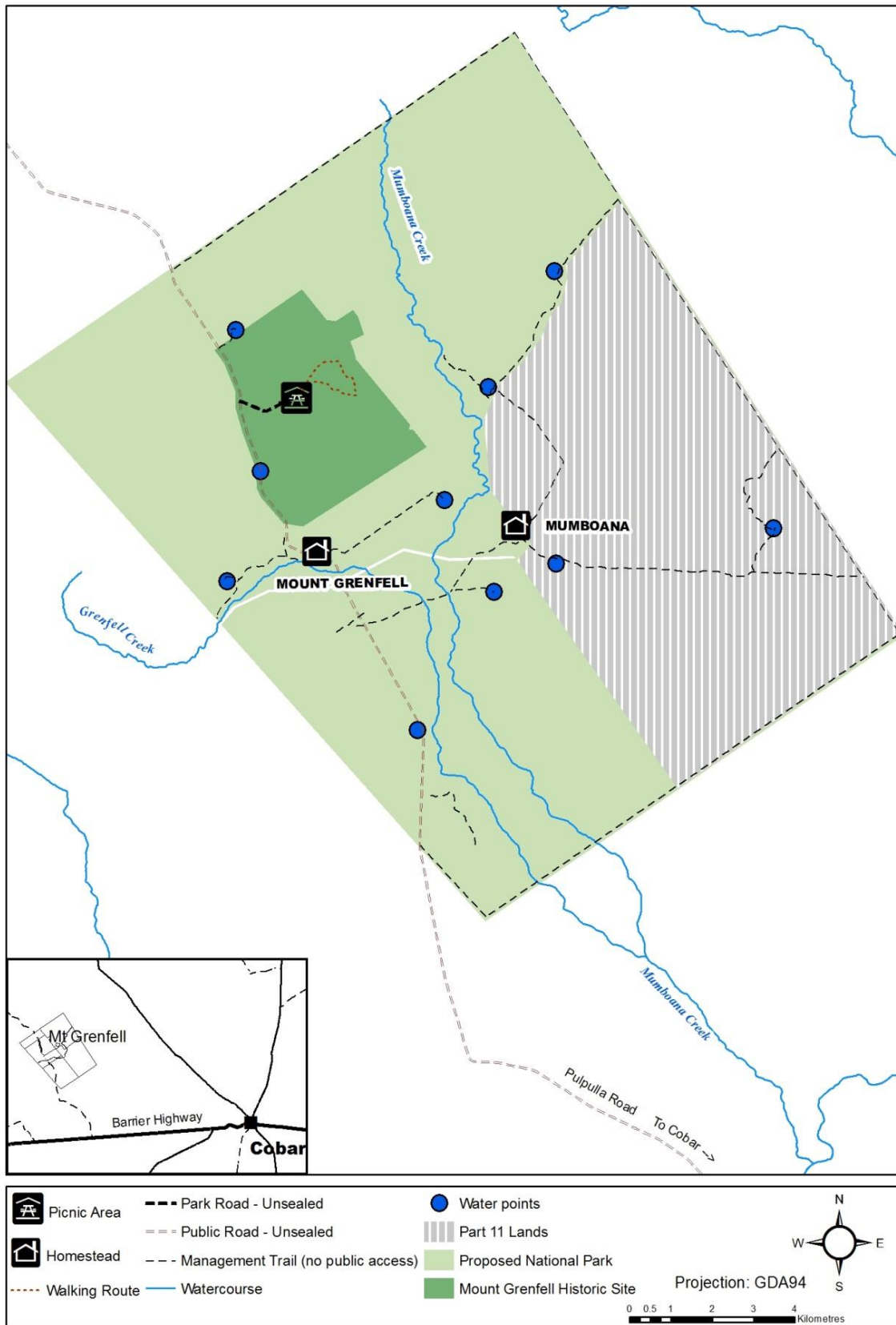
**'We've come 200 years down the road and right through New South Wales we have hardly had access to Country. National Parks, side by side has created a place where we can have access, to get back on Country, to do our own thing under a co-management process. That's good ... because that can start something up. Having that access is crucial.'**

Phil Sullivan, Aboriginal owner on the Mount Grenfell Board of Management





**Map 1: Map of Mount Grenfell Historic Site, proposed Mount Grenfell National Park and Part 11 land**





## 1.2 Protecting an important place – statement of significance

Before European settlement, Ngiyampaa Wangaaypuwan lived in the dry region of western New South Wales between three rivers: the Darling-Barwon to the north, the Bogan River to the east, and the Lachlan River to the south (Beckett 1959; Beckett et al. 2003). This area is *ngurrampaa*, and along with the park holds significance for Ngiyampaa Wangaaypuwan as part of *ngurrampaa*. Since the mid-19th century the art sites at Mount Grenfell Historic Site have assumed significance for non-Aboriginal people, but for Ngiyampaa Wangaaypuwan the landscape is significant as a whole and not just in terms of individual features.

Mount Grenfell Historic Site, the proposed Mount Grenfell National Park and Part 11 land are significant for:

### Cultural values

- Mount Grenfell is part of a network of dreaming lines that criss-cross *ngurrampaa* and is an important teaching and learning place.
- The park is rich in the physical evidence of Ngiyampaa culture including rock art, campsites and hearths associated with a waterhole, quarries, ochre pits, grinding grooves, artefact scatters and scar trees. There are many additional Aboriginal cultural heritage sites present beyond those currently recorded.
- The rock shelters contain extensive galleries of Aboriginal rock art which are listed on the Australian Heritage Database. The 1300 plus paintings have been described as one of the most significant and visually striking art complexes in New South Wales.

### Joint management values

- In 2004 the Mount Grenfell Historic Site became only the second park in New South Wales to be handed back to its Aboriginal owners, the Ngiyampaa Wangaaypuwan.
- Through majority representation on the Mount Grenfell Board of Management, Ngiyampaa Wangaaypuwan play a major role in decision-making for park management, planning and policy.

### Biodiversity values

- The park protects six regionally significant and poorly conserved vegetation communities within a region which has a low level of reservation for biodiversity.
- The park supports a diversity of native plant species, including ten species of regional significance as well as traditional food and medicine resources for Ngiyampaa Wangaaypuwan.
- The park supports over 195 species of native animals which includes 13 species listed under the NSW *Threatened Species Conservation Act 1995* (TSC Act) and one species listed under both the TSC Act and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- The park is located at the intersection of the Bassian (temperate climate) and Eyrian (semi-arid climate) zoogeographic zones, and supports a range of native animals which are at or near the limit of their geographical distribution.



## Geological and landscape values

- The park contains freshwater fish fossils from the early to middle Devonian period (390–405 million years ago) when fresh water was more abundant and a sea bordered the Cobar Peneplain to the south-west.
- The park protects part of the Leopardwood Range, significant as a landmark in the landscape of the Cobar Peneplain and in its geological composition, providing culturally significant chert and ochre.

## Historic heritage

- The park provides an example of turn-of-the-century pastoral occupation in the Western Division of New South Wales. Historic heritage includes a rare surviving example of a flitch log cottage of state significance dating from the 1880s, as well as two homesteads, a woolshed and workers' quarters dating between 1924 and 1970 which are of local significance.

**'Mount Grenfell is unique because it's not just about nature, it's also about culture, and about heritage, and about connection to Country, and all the things that hang on trees ... which are part of a landscape that people have walked through for thousands of years.'**

Peter Dykes, Conservation Group Representative on the Mount Grenfell Board of Management

## 1.3 Specific management directions

Our specific management directions for the park are:

- Jointly manage the historic site, proposed national park and Part 11 land together as if they were one park.
- Recognise the intrinsic importance of Ngiyampaa cultural heritage values and ensure they are a key consideration in managing the park.
- Support Ngiyampaa Wangaaypuwan in reconnecting with *ngurrampaa* and culture through cultural activities and involvement in managing the park.
- Develop a cultural heritage management strategy for the protection of Ngiyampaa Wangaaypuwan cultural values, including but not limited to the rock art on the historic site.
- Address erosion as a high priority to stabilise the landscape and restore degraded parts of the park.
- Develop a goat management plan as a high priority.
- Provide interpretation to educate visitors about Ngiyampaa cultural values and other values of the park.
- Encourage visitors to the park and promote the park as part of a regional tourist route.

The background features a complex, abstract pattern of light gray lines. It consists of numerous overlapping concentric circles, some with smaller circles inside them, and various curved, scribbled lines that create a sense of movement and depth. The overall effect is a dense, textured field of geometric and organic shapes.

## **2 MANAGEMENT PURPOSE AND PRINCIPLES**





## 2. Management purposes and principles

### 2.1 State government laws and NPWS policies

The management of the park is in the context of a legislative and policy framework, primarily the NPW Act and Regulation, the TSC Act and NPWS policies.

Other legislation, strategies and international agreements may also apply to management of the area. In particular, the *Environmental Planning and Assessment Act 1979* may require assessment of environmental impact of works proposed in this plan. The NSW *Heritage Act 1977* may apply to the excavation of known archaeological sites or sites with potential to contain historic archaeological relics. The Commonwealth EPBC Act may apply in relation to actions that impact matters of national environmental significance, such as migratory and threatened species listed under that Act.

The development of the plan of management for co-managed lands is one of the responsibilities of the Mount Grenfell Board of Management (see Section 2.3). It is prepared in consultation with the NPWS Director-General or nominated representatives, such as NPWS staff. A board of management must exercise its functions in accordance with any plan of management in force for the lands for which it is established.

A plan of management is a statutory document under the NPW Act. Once the Minister has adopted a plan, the plan must be carried out and no operations may be undertaken in relation to the lands to which the plan relates unless the operations are in accordance with the plan. This plan will also apply to any future additions to the park. Should management strategies or works be proposed in future that are not consistent with this plan, an amendment to the plan will be required.

**‘It’s very special ... to know that finally the government and the white community acknowledge that this is our land and we should have it back.’**

Elaine Ohlsen, Cobar Local Aboriginal Land Council representative and Aboriginal owner on the Mount Grenfell Board of Management

### 2.2 Joint management – managing the park together

NPWS acknowledges that as traditional custodians of the land, Aboriginal people have a unique role to care for and manage Country. This role overlaps with NPWS legislative responsibilities to manage land for conservation.

Part 4A Aboriginal ownership and lease-back arrangements are established under the NPW Act and the *Aboriginal Land Rights Act 1983*. These two Acts establish a process by which parks and reserves listed in Schedule 14 of the NPW Act can be returned to their Aboriginal owners.



On 17 July 2004 the handback process was completed and Ngiyampaa Wangaaypuwan People achieved formal recognition of their rights as Aboriginal owners of Mount Grenfell Historic Site. It is now Ngiyampaa Wangaaypuwan freehold land held by Cobar Local Aboriginal Land Council on behalf of the Aboriginal owners and leased back to the Minister under Part 4A of the NPW Act. A Board of Management, made up of a majority of Aboriginal owners, has been established as part of this process (see Section 2.3). The initial period of the lease is 30 years (DEC 2004).

The Board of Management and NPWS have agreed that the remainder of the park should be managed together with the historic site under a formal joint management agreement. Until such time as an agreement is formulated, the proposed national park and Part 11 land will be managed in partnership with NPWS.

**‘Being on the Mount Grenfell Board of Management gives me an opportunity to have a say and speak for our mob in what happens on some of our land such as the Mount Grenfell Historic Site and Mount Grenfell Station, with long-term plans to get our mob connected back on Country through activities and such on those lands we manage in partnership with NPWS Cobar NSW.’**

Keith Hampton, Aboriginal owner on the Mount Grenfell Board of Management

### **2.3 The Mount Grenfell Board of Management**

The Mount Grenfell Board of Management is responsible for the care, control and management of the Mount Grenfell Historic Site. The Board of Management sets the overall direction for the park as the park authority while NPWS carries out day-to-day operations.

The Mount Grenfell Board of Management is made up of 13 members. Eight members are Registered Aboriginal Owners who are accountable to their community and who represent each of the Ngiyampaa–Ngemba language groups – *Karulkiyalu* or ‘Stone Country’ People, the *Pilaarrikiyalu* or ‘Belah Tree’ People and the *Nhiilyikiyalu* or ‘Nelia Tree’ People. Remaining members include nominees from the Cobar Local Aboriginal Land Council, NPWS, Cobar Shire Council, neighbouring landholders and a conservation group concerned with the conservation of the region in which the park is located.

**‘The main reason I became involved in the Board was so that I could learn things and pass things down to my children.’**

Sharron Ohlsen, Aboriginal owner and Deputy Chair on the Mount Grenfell Board of Management



## 2.4 Principles for managing the park

### Historic sites

Historic sites are reserved under the NPW Act to identify, protect and conserve areas associated with a person, event or historical theme, or containing a building, place, feature or landscape of cultural significance.

Under section 30F of the NPW Act, historic sites are to be managed to:

- conserve places, objects, features and landscapes of cultural value
- conserve natural values
- provide for sustainable visitor use and enjoyment that is compatible with conservation of natural and cultural values
- provide for sustainable use (including adaptive re-use ['adaptive reuse' as defined by the NPW Act]) of any buildings or structures or modified natural areas having regard to conservation of natural and cultural values
- promote public appreciation and understanding of the site's natural and cultural values
- provide for appropriate research and monitoring.

Historic sites are established for the primary purpose of protecting and promoting cultural values.

### National parks

National parks are reserved under the NPW Act to protect and conserve areas containing outstanding or representative ecosystems, natural or cultural features or landscapes or phenomena that provide opportunities for public appreciation, inspiration and sustainable visitor or tourist use and enjoyment.

Under section 30E of the NPW Act national parks are to be managed to:

- conserve biodiversity, maintain ecosystem functions, protect geological and geomorphological features and natural phenomena and maintain natural landscapes
- conserve places, objects, features and landscapes of cultural value
- protect the ecological integrity of one or more ecosystems for present and future generations
- promote public appreciation and understanding of the park's natural and cultural values
- provide for sustainable visitor or tourist use and enjoyment that is compatible with conservation of natural and cultural values
- provide for sustainable use (including adaptive reuse ['adaptive reuse' as defined by the NPW Act]) of any buildings or structures or modified natural areas having regard to conservation of natural and cultural values
- provide for appropriate research and monitoring.

The primary purpose of national parks is to conserve nature and cultural heritage. Opportunities are provided for appropriate visitor use in a manner that does not damage conservation values.



### Desired outcome

- The park and any subsequent additions to the park are managed jointly by NPWS and the Mount Grenfell Board of Management.

### Guideline

- Any subsequent additions to the park will be managed as if they were part of the joint management agreement.

### Action

- 2.4.1 Develop a formal agreement for joint management of the proposed Mount Grenfell National Park and Part 11 land between NPWS and the Ngiyampaa Wangaaypuwan community.

**‘The completion of the plan of management for Mount Grenfell has been a wonderful collaboration between the Board and NPWS. The central point has been the shared understanding that has developed over values, their significance, and how best they may be recognised, protected and managed. The planning process itself has enhanced joint management and will ensure that implementing the plan is both a shared responsibility and journey.’**

Ross McDonnell, Officer of the NPWS (OEH) on the Mount Grenfell Board of Management



### **3 NGIYAMPAA WANGAAYPUWAN CULTURAL VALUES**



### 3. Ngiyampaa Wangaaypuwan cultural values

#### 3.1 Language and story

Ngiyampaa Wangaaypuwan are the people who speak the Ngiyampaa language the Wangaaypuwan way. That is, they are the people who use the word *wangaay* for 'no' (Smart et al. 2000) and *puwan* means 'having' or 'with'. This language can be more fully referred to as Ngiyampaa–Ngemba Wangaaypuwan which reflects the 'heavy tongue' spoken in the north and 'light tongue' spoken in the south. The Wailwan people to the east also use Ngiyampaa as the name of their language.

Aboriginal languages were not traditionally written languages and the telling and passing on of stories is an important aspect of maintaining culture and connections to Country. The story below is from a Ngemba man, Paul Gordon (cited in Smart et al. 2000), though the story of Biaime is a shared one. It demonstrates how *ngurrampaa* came to be. Stories such as this one will be used for interpretation of the park (see Section 6.2).

*Biaime had animal spirits to help him create the landscape: Kangaroo, Emu, Goanna, and the Porcupine who was the most important. Big Goanna formed the Gundabooka Ranges. When he had finished that he went to sleep and from certain situations you can see his form where he is sleeping, see his legs, tail and body. Mount Oxley was formed by the Porcupine, who then went to sleep. At Mount Drysdale, Biaime lay down at West Billigoe.*

*Wuttagoona is the place where all the lesser animals went to sleep – frogs, lizards, crocodiles. Biaime made a spring at Wuttagoona for them and if you go up there at night time with a light, all those rocks will take the form of all those animals. They all had different jobs and all had a part in ceremonies, after that they all went back into the rocks.*

*At Coronga Peak, Biaime made it that shape so it is in the centre of all the other places and he can view all his other creations.*

*Biaime stepped into the sky from Mount Oxley which was originally round. When he stepped up he made it flat like it is today.*



**‘These places that we can go to now and we don’t have to argue, we don’t have to say do we need to get permission to go on, like private property. If we want to go for a walk we can, if we want to visit the art we can ... It’s good to be out here on Country as everyone says to us, Australia’s Country.’**

Lawrence Clarke, Aboriginal owner on the Mount Grenfell Board of Management

### **3.2 Ngiyampaa Wangaaypuwan *ngurrampaa***

As explained by the Board of Management in the Ngiyampaa welcome and Board statement, local groupings of Ngiyampaa Wangaaypuwan are recognised and named geographically according to the type of Country they occupied. The people who camped in the area around Mount Grenfell are *Karulkiyalu* or ‘Stone Country’ People. Other language groups are the *Pilaarkiyalu* or ‘Belah Tree’ People and the *Nhiilyikiyalu* or ‘Nelia Tree’ People. The park was visited by people from all these groups for ceremonies and gatherings.

Historically, Ngiyampaa Wangaaypuwan were associated with the dry backcountry of western New South Wales (see map of Country in Map 2). Ngiyampaa People only visited the Darling-Barwon and Bogan Rivers during times of severe drought and only at points where the soil was red (Beckett et al. 2003). Like Aboriginal people everywhere, Ngiyampaa Wangaaypuwan maintained responsibilities for looking after Country and shared resources, stories and a host of cultural ties with neighbouring peoples. Along the boundaries of *ngurrampaa* there is shared Country – lands which would be used by other Aboriginal people in times of drought, for ceremony, for marriage or for trade. To the east is Wailwan Country, to the south Wiradjuri Country and to the north and west, Paakantji/Baakantji Country.

Extensive family networks and traditional kinship connections cover the length and breadth of *ngurrampaa*. Ceremonies and gatherings took place from Conoble, Willandra Creek, Mount Manara, Iona and Wuttagoona in the south-west; to Gundabooka and Coronga Peak in the north; and to Boppy Mountain and as far as the Brewarrina fish traps and Macquarie Marshes further east. Scattered between these locations are important cultural sites such as Neckarboo, Corinya, Keewong, the Three Sisters, Mount Drysdale, Carowra Tank, Trida and the rock holes at Byrock.

Mount Grenfell is also part of the line of mythological places and rock art sites running from the Darling River below Bourke through Gundabooka, Wuttagoona, Mount Grenfell, Bulla Bulla, Mount Doris, Neckarboo, Corinya, Mount Manara, and down to Pooncarie back on the Darling River. This line of art sites is believed to have delineated the boundaries of Ngiyampaa Country, where Ngiyampaa overlapped with Paakantji/Baakantji, where important mythological events occurred and where mythological pathways intersect. For Aboriginal people, places are not that important by themselves because they are tied to everything else and it is those ties that make places important.

Prior to European settlement the transmission of much religious and cultural knowledge occurred during the performance of ceremonies which could be performed only in certain places



and at certain times. As is the case for other Aboriginal people throughout Australia, restrictions of movement and forced relocation of Ngiyampaa Wangaaypuwan has interfered with the transmission of knowledge. Once ceremonial life ceased it became virtually impossible for secret and sacred knowledge to be passed on appropriately.

While Ngiyampaa Wangaaypuwan are widely dispersed today, they are reclaiming cultural knowledge and rebuilding a strong connection with *ngurrampaa*. The handback of the Mount Grenfell Historic Site to the Aboriginal owners was an important first step for the Ngiyampaa Wangaaypuwan community. Since then, Ngiyampaa Wangaaypuwan are seeking more opportunities to be on Country, and renew and revitalise connection to Country. The park provides access to Country and contributes to this process of reconnection.

### **Desired outcome for reconnection**

- The park provides an opportunity for Ngiyampaa Wangaaypuwan to reconnect with Country.

### **Guidelines**

- The approval of the Board of Management is required for all cultural activities on the park. Some activities may also require approval under the NPW Act.
- The Board of Management and NPWS will provide opportunities for employment, training and capacity building for Ngiyampaa Wangaaypuwan.
- The Board of Management may close sections of the park when cultural activities are being held. Campfires may be permitted in association with cultural activities by Ngiyampaa Wangaaypuwan.
- The Board of Management may consider requests for cultural activities on the park from Aboriginal groups other than Ngiyampaa Wangaaypuwan.

### **Actions**

- 3.2.1 Facilitate cultural learning opportunities for Ngiyampaa Wangaaypuwan in the park. Cultural learning opportunities may include culture camps, cultural surveys, collecting natural resources for cultural use, recording of oral history, conducting ceremonies and the like.
- 3.2.2 Investigate options for developing a cultural centre and Keeping Place in the vicinity of the Mount Grenfell Homestead.
- 3.2.3 Investigate dual naming of the park and features within the park.

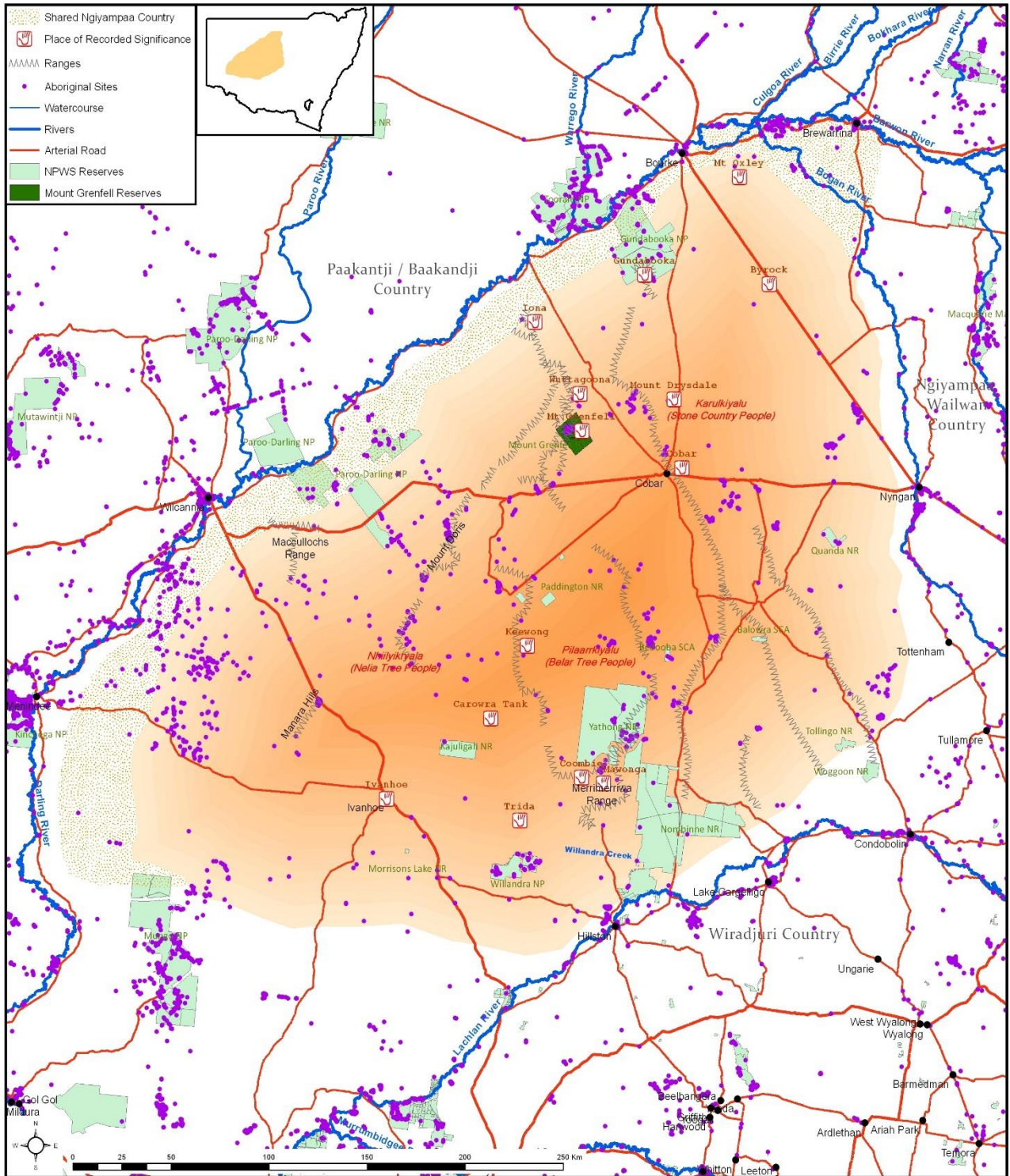
**‘One of my aspirations was to come and work out on my Country and learn a lot about it and be a part of where my people come from. I got the opportunity to do that when I was out here which was spiritual and defining for me as a person and as a Ngiyampaa person.’**

Jessica Wegener, Aboriginal owner on the Mount Grenfell Junior Board of Management





**Map 2: Ngiyampaa ngurrampaa**





### 3.3 Water

Many of the sites identified as significant to Aboriginal people are associated with water sources such as lakes, waterholes and springs (Smart et al. 2000). In the hot, persistently dry, semi-arid climate of the Cobar Penneplain, average evaporation exceeds the average rainfall and there are no permanent streams (Beckett et al. 2003). Waterholes and soaks take on great significance in this landscape.

At Mount Grenfell Historic Site, ephemeral streams, waterholes and soaks supported Ngiyampaa Wangaaypuwan in all but the most severe droughts. The site could support a large gathering of people for a short period of time or a small number of people at any time (Beckett et al. 2003). The concentration of art sites is evidence of how important these sources of water were to Ngiyampaa Wangaaypuwan (McCarthy 1976). Today, the waterhole at the historic site is semipermanent, becoming dry in extended periods of dry weather.

The waterhole also has great spiritual significance, as the resting place of *Waaway* (the rainbow serpent) who made the rivers, creeks, swamps, lakes and waterholes. The *Waaway* is only to be approached with ritual precautions by people with the appropriate knowledge (Beckett et al. 2003; Behrendt & Thompson 2003).

Man-made rock wells for holding fresh water, known as gnarma holes, are known to exist on Mount Grenfell Historic Site. It is believed these holes were created by building very hot fires and then pecking out the rock fragments with harder materials.

#### Desired outcome for water

- The cultural water sources in the park are recognised and looked after.

#### Guideline

- Methods of Ngiyampaa Wangaaypuwan water management in the park are acknowledged and passed on.

#### Action

- 3.3.1 Seek advice and compile knowledge on culturally appropriate methods of looking after sources of fresh water in the park, including gnarma holes, soaks and waterholes.

### 3.4 Plants and animals

Knowledge about local foods and resources has been gathered by Ngiyampaa People through observation, care and use, and passed on for many generations. Plants and animals have cultural value to the Ngiyampaa People and have been cared for through kinship relations to ensure their survival over time. Some of this traditional ecological knowledge has been diminished through removal of Ngiyampaa from Country, but the kinship relationships remain and it is important for Ngiyampaa to maintain connections to Country where possible.

Broadscale land-use changes in western New South Wales have also had major impacts on the availability and habitat needs of native plants and animals. Fire was an integral part of managing Country by Aboriginal people, including Ngiyampaa Wangaaypuwan. Fire was used for hunting, promoting useful species, keeping open paths for travel, and for the protection of culturally important places and features. The Ngiyampaa Wangaaypuwan are keen for traditional burning practices to be carried out in the park but further research is needed before this can be undertaken. More research is also needed into the fire requirements of native plants



and animals specific to western New South Wales, as this has potential to complement Ngiyampaa cultural knowledge.

Information has been collated by Pilaarrkiyalu Ngiyampaa people about traditional uses of plants and animals on the Cobar Penneplain (Harris et al. 2000). These uses included food, medicine, toolmaking, weaving and other purposes. Identification of plants and recognition of their uses enabled the Ngiyampaa Wangaaypuwan to thrive in the harsh low-rainfall landscape. The knowledge associated with the preparation of food and medicine was passed on from one generation to the next and was vital in knowing what time of year fruits were expected, and which parts of plants could be rendered palatable by picking at the right time or by cooking.

In relation to animals, kinship relations among Ngiyampaa Wangaaypuwan determine which animals can be hunted and by whom. Within the proposed national park and Part 11 land, there is an opportunity for hunting and gathering traditional bush foods as part of cultural activities, such as demonstrating traditional cooking practices and teaching younger people about traditional foods. These activities will be available to Ngiyampaa Wangaaypuwan people only and subject to approval by the Board of Management. Small amounts of bush foods may also be used to demonstrate cultural activities to visitors.

### **Desired outcomes for plants and animals**

- Ngiyampaa Wangaaypuwan relationships with plants and animals in the park are recognised and passed on.
- Traditional ecological knowledge provided by Ngiyampaa Wangaaypuwan should be used to complement scientific knowledge where possible, to inform management of plants and animals in the park.

### **Guidelines**

- Hunting of animals and gathering bush foods may only be considered as part of cultural activities by Ngiyampaa Wangaaypuwan.
- Use of cultural resources must be sustainable, approved by the Board of Management and carried out in accordance with the provisions of the NPW Act.

### **Actions**

- 3.4.1 Support any research undertaken concerning the cultural uses of plants and animals which can be applied to management and interpretation of the park.
- 3.4.2 Support any research undertaken concerning the fire requirements of local native species and the traditional burning practices by Ngiyampaa Wangaaypuwan.

## **3.5 Rock art**

The rock art galleries occupy the shelters and overhangs of a ridge that runs down an open valley of the Mount Grenfell Historic Site. The paintings are spread along three main galleries and contain over 1300 images. They are worked in red ochre, yellow ochre, charcoal and white pipeclay and cover a great variety of subjects – events, hunting, ceremonies, people, animals and birds, hand stencils, and linear patterns and designs. The small painted human and animal figures, typified by ‘stick figures’, frequently depicted in dynamic or dancing modes, are a distinctive Ngiyampaa style.



The Mount Grenfell Historic Site provides an excellent example of the complexity and importance of rock art sites in New South Wales. The artwork has been widely acclaimed in non-Aboriginal circles for its vibrancy, density of images and artistic merits. The art sites have been identified as having national heritage significance and are listed on the non-statutory Register of the National Estate (now the Australian Heritage Database).

For Aboriginal people, rock art is used as a form of communication, with sites containing rock art used for ceremony, protection, meeting, sharing and living over many generations. At the historic site this use and occupation extends over at least 3000 years and includes post-contact images of horses with riders, and a gun. The continuous occupation of the rock art sites has led to a build-up of cultural material on the floors of the rock shelters. These sites are particularly rich in occupation evidence such as ochre, stone tools and grinding dishes. These artefacts have survived as they are the toughest components of daily life.

For Ngiyampaa Wangaaypuwan, the rock art at the historic site is linked with ancestors from the time of Creation. The rock art tells what has happened in the time of Creation, of specific events, of the creation of the landscape and the people, and of the learning of rules, dances and ceremonies. The hand stencils (*marra yappa*) reaffirm the artists' connection to that place.

Some rock shelters were important to women and children, while others were important to men. Much of the knowledge relating to the rock art is now diminished because Ngiyampaa Wangaaypuwan have not had access to *ngurrampaa* for a long time and the passing on of knowledge has been interrupted.

While the rock overhangs have provided protection and the galleries are well-preserved, they occupy a fragile landscape which is prone to erosion, rubbing by goats, nest building by mud wasps and birds, and other disturbances. The paintings are fading over time. Silicone drip lines have been installed to prevent water running over the rock face and washing away the pigment. An ongoing monitoring program ensures the paintings are visited by rock art specialists every five years to assess their condition and carry out necessary work. The stability of the rock overhangs and nearby vegetation is also monitored. This program involves local Ngiyampaa community members.

The larger rock art sites have been enclosed in heavy duty wire-mesh enclosures to exclude goats and minimise the risk of visitor damage. The mesh contains 'windows' for people wanting to have an uninterrupted view of the paintings. While effective in preventing damage to the rock art, the barriers greatly detract from the natural appearance of the rock shelters and interfere with interpretation of the artwork. Alternative approaches to the wire barriers have been investigated (Gondwana Consulting 2006) but no decision has yet been made about whether the barriers should be changed. Some of the smaller rock art sites lack any form of protection. Monitoring of goat activity on the historic site and the success of goat control across the park must be taken into account before any change to the current protective measures is considered.

#### **Desired outcome for rock art**

- The rock art at the historic site is recognised and conserved as an important part of Ngiyampaa culture.

#### **Guidelines**

- The rock art sites will be managed in accordance with a cultural heritage management strategy approved by the Board of Management (see Action 3.6.3).



- Rock art conservation is an evolving science and techniques should be constantly reviewed and include Ngiyampaa Wangaaypuwan knowledge to best protect the rock art.
- All works proposed at the art sites will be preceded by an assessment of Ngiyampaa Wangaaypuwan cultural values in consultation with the Ngiyampaa community.
- A Ngiyampaa person approved by the Board of Management will be on site while works are being undertaken in culturally sensitive areas.
- Maintenance of rock art sites will only be carried out by appropriately trained NPWS staff and members of the Ngiyampaa Wangaaypuwan community with the approval of the Board of Management.

### **Actions**

- 3.5.1 Carry out an annual inspection of all rock art sites in the park and maintain them as needed to address threats including growth of vegetation, integrity of goat-proof barriers and potential water damage.
- 3.5.2 Prepare a rock art maintenance plan which allows for regular monitoring and maintenance of all art sites in the park. Carry out monitoring and maintenance of all rock art in accordance with this plan.
- 3.5.3 Continue to build capacity among the Ngiyampaa Wangaaypuwan community and NPWS staff for rock art monitoring and maintenance through on-site training.
- 3.5.4 Prepare condition reports for the rock art sites at least every three years, to be considered by the Board of Management.
- 3.5.5 Review protective measures for the art sites, and ensure that impacts from goats and other disturbances are carefully considered before any measures other than the existing mesh barriers are implemented. The *Mount Grenfell Art Site and Visitor Use Precinct Management Options Report* (Gondwana Consulting 2006) should form the basis of this review.

**‘This is our culture. It’s very strong and it’s going to be alive forever and a day as long as we continue to have places like Mount Grenfell Station and Mumboana ... as teaching grounds for our younger generations.’**

Denise Hampton, Aboriginal owner on the Mount Grenfell Board of Management

### **3.6 Other Ngiyampaa cultural heritage**

There is a great deal of evidence of past Aboriginal use throughout the park in the form of open camp sites and hearths, grinding stones, scarred trees, tool-making quarries and artefact scatters. These sites tell the story of Ngiyampaa occupation and use of *ngurrampaa* going back at least 3000 years.

Since acquisition of the former Mount Grenfell Station, cultural surveys of the area have been undertaken in April 2011 and April 2012 to investigate the extent and type of cultural heritage items present. Significant discoveries include a large and intensive work site used for fine



toolmaking which contains tulas, tula slugs, blades, anvils, circular grindstones, hammer stones, cores and flakes. A large site with seed grinding dishes has also been found, and campsites dotted with fire hearths extend for almost 3 kilometres along Mumboana Creek. This richness of occupation evidence suggests that large gatherings of Ngiyampaa took place in the area, particularly after rain. Many artefacts are lying in situ and are of great cultural importance and archaeological interest. The cultural surveys are important to Ngiyampaa Wangaaypuwan for reconnecting with *ngurrampaa*. Ongoing surveys will continue to provide valuable information about cultural heritage values of the park.

The historic site provided a ready supply of fine-grained chert for use in toolmaking and a source of red ochre for use in rock art and for ceremonial body painting. Ochre and stone are common across the Australian landscape, however, only high quality deposits were used by Aboriginal people. At these sites, many clans would gather together for trade, ceremony and other events (DPI 2007). The 'processing' site at Mumboana Creek suggests a high demand for chert-based products. Transport routes and relationships would have been established to allow for trade of this important resource.

Some places, individual artefacts and cultural sites are at risk of disturbance by soil erosion, goats and human interference. The sloping western banks of Mumboana Creek, for example, lack protective vegetation, and the formation of erosion gullies has caused downslope movement of objects. Some objects have fallen into the creek bed and are likely to be lost. Sites have also been disturbed in places by road construction and vehicles driving off roads.

To address these impacts, cultural heritage values will need to be managed by a combination of preventative and corrective measures. It may be necessary to fence off the most sensitive areas such as the banks of Mumboana Creek to reduce further threat of disturbance. In cases where disturbance is already severe, the removal of cultural heritage objects to a safe keeping place may be necessary. These decisions will be made by NPWS and the Board of Management on the basis of specialist advice.

### **Desired outcome for other Ngiyampaa cultural heritage**

- Objects, places and other items of Ngiyampaa cultural heritage are protected.

### **Guidelines**

- Heritage items will be preserved in situ where possible. Relocation to a keeping place identified by the Board of Management will only be considered where in situ preservation cannot be achieved.
- Any person who proposes to publish the location or image of Ngiyampaa Wangaaypuwan places, objects, sites, art, or cultural knowledge related to the park for professional/commercial use, will require the prior consent of the Board of Management.

### **Actions**

- 3.6.1 Continue to undertake cultural heritage surveys in the park. All places, objects, and sites found in the park will be recorded in the Aboriginal Heritage Information Management System (AHIMS).
- 3.6.2 Identify threats to cultural heritage values (in addition to rock art) throughout the park and carry out protective management measures in accordance with the guidelines.



- 3.6.3 Prepare a culture and heritage management strategy for the park which includes advice on all cultural heritage values, the threats to those values, and appropriate management measures required.
- 3.6.4 Identify cultural heritage protection zones to preserve important cultural values. All management activities proposed in these areas must be assessed for their potential to have an adverse impact on the values.
- 3.6.5 Investigate cultural heritage under the site of the old carpark on the historic site and provide appropriate protection if necessary.

**‘We have so much proof that this area is deeply rich in our culture.’**

Colin Clark, Aboriginal owner and Chair on the Mount Grenfell Board of Management



## 4 HISTORIC HERITAGE





## 4. Historic heritage

### 4.1 Settlement and land use

Explorers to western New South Wales first followed river courses in their quest for sheep and cattle pasture, with the result that the ‘waterless backcountry’ between the Darling, Bogan and Lachlan (Ngiyampaa *ngurrampaa*) was some of the last Country to be taken up by European settlers. From about 1870 onwards there was rapid occupation and development of this ‘backblocks country’ (Condon 2002).

The land now occupied by the park was managed as two sheep runs of roughly the same size (21,000 acres) from the late 19th century onwards, though both were subject to various subleases and regroupings over their 93-year history. The Mount Grenfell run occupied the south-west half, and was the earlier one to be developed. James Hervey obtained a lease over the run in 1882 and was one of the first graziers to register a sheep brand with the newly founded Cobar Pastures Protection Board. He ran 3000 sheep on the property. The Mumboana run, containing Mumboana Creek, occupied what is now the north-east half of the park. In 1885 it was leased to Matthew Beven who ran 2500 sheep on the property.

Little is known about the condition of the land and practices of the various graziers at Mount Grenfell over the next 100 years. It is known, however, that the number of sheep for the combined Mount Grenfell – Mumboana runs exceeded 5800 head in 1952. No pasture improvement was undertaken and there is evidence of only one small area being cleared for cropping. An early survey plan dating from 1886 for the southern part of the holding (WL6569) shows a cattle yard but there is no subsequent reference to cattle in the historical record. The origin of the name Mount Grenfell is also unknown, though there was reference to a ‘Mr Grenfell’ in a property dispute involving James Hervey around 1888.

In the 1960s the owners of the Mount Grenfell Station opened this land up to the public as part of a tourism venture. They ran tours and controlled access to the art sites. They also provided accommodation and operated a shop at the homestead which sold hunting and camping supplies, drinks and food. In 1978, the land now known as the Mount Grenfell Historic Site was listed as a Landscape Conservation Area by the National Trust of Australia. While having no legislative power, the listing was an independent recognition of the site’s heritage values. The site was acquired by NPWS in 1978 and reserved as a historic site in 1979.

The Mumboana and Mount Grenfell runs remained separate until being amalgamated by new owners in 1980. NPWS acquired the remainder of what had become Mount Grenfell Station in 2010 (now the proposed national park and Part 11 land). At the time of purchase, the holding had been supporting 1000 sheep for the previous two years.

### 4.2 Historic buildings and structures

Both the Mount Grenfell and Mumboana homesteads survive as examples of isolated pastoral runs of the late 19th and 20th centuries, demonstrating a self-reliant and often exacting lifestyle in a harsh landscape. Ground tanks and fencing also serve as reminders of past station life. A heritage action statement has been prepared for five historic buildings in the two homestead precincts. This includes an assessment of cultural heritage significance together with recommendations for their future use (Sheppard 2014).



It is estimated the existing Mount Grenfell Homestead was constructed around the 1960s after an earlier, smaller homestead located at the western end of the complex, was abandoned. The earlier homestead is thought to have been constructed in the late 19th or early 20th century. The existing homestead was constructed with compressed asbestos-cement (fibro) sheeting and represents a potential asbestos hazard. The homestead has been extensively modified and is presently uninhabitable due to a fire in the kitchen that occurred prior to acquisition. Rural buildings, machinery sheds, a meat house, coolroom, workers' quarters and other structures are scattered around the homestead.

Although the Mount Grenfell Homestead is of little architectural merit, it is, however, of local significance due to its association with the art site and the early years of tourism (Sheppard 2014). The water tank stand has been described as the most remarkable structure on the site for its decagonal (or 10-sided) shape, constructed from large cypress upright posts (High Ground Consulting 2012a). The generator shed is one of the oldest remaining structures on the former Mount Grenfell Station, having been constructed between 1937 and 1952. It has potential for interpreting the history of the Mount Grenfell Homestead precinct.

The Mumboana Homestead precinct differs from the Mount Grenfell Homestead precinct as it is more extensive and contains more components of a working sheep station. It also contains the oldest structure in the park; a cottage built in the 1880s. The intact fitch-panel log cottage was constructed with adzed cypress logs. This structure is considered to be of state significance (Sheppard 2014) and was possibly the first permanent structure built on the Mumboana holding. It represents a rare example of a once widespread form of building across the Riverina and Western Division, and has the potential to provide valuable information on the construction, management and evolution of 19th century buildings of this type.

Other buildings include the homestead (constructed in 1923), outbuildings, shearers' quarters, woolshed, and an in-ground tank. The woolshed was built in the past 20 years from materials scavenged from other woolsheds, and was probably never used for its intended purpose. The shearers' quarters were constructed in the 1960s and are in very good condition. Some of the structures contain potential hazards, for example, the asbestos lining of the meat house and veranda of the homestead building, and unstable flooring in the woolshed.

The Mumboana Homestead precinct has been assessed as having local heritage significance and has a high level of integrity (Sheppard 2014). This report recommended that the majority of structures in the precinct, including the outbuildings, tank, pumping infrastructure, woolshed and shearers' quarters be conserved. The shearers' quarters have potential to provide accommodation for NPWS staff, the Board of Management and other Ngiyampaa People participating in cultural activities on the park.

The heritage action statement for the five historic buildings has stated that adaptive re-use of these structures is appropriate. The Board of Management supports the suggested uses if the opportunity arises. Uses could include:

- the log cottage being used for interpretation, meeting room or education space
- the two homesteads and Mumboana Woolshed for accommodation, meeting rooms, a keeping place, education space, interpretation and/or visitor centre
- the continued use of the Mumboana shearers' quarters as accommodation and catering kitchen for visiting groups.



The heritage action statement also provides that other uses may be considered if they are likely to have low to minimal impact on the historic fabric (Sheppard 2014).

### **Desired outcomes for historic heritage**

- Significant historic heritage values are conserved and interpreted.
- Historic heritage buildings are adaptively re-used where appropriate.

### **Guidelines**

- Historic heritage values will be protected or improved.
- Risk assessments will be completed before public access is allowed to the Mount Grenfell and Mumboana homestead precincts.
- A photographic record will be taken of all historic heritage structures before works occur.
- Historic heritage values may be interpreted as part of the history of the park.

### **Actions**

- 4.2.1 Implement the recommendations of the heritage action statement for the five historic buildings and retain all other heritage structures until their heritage value has been properly assessed.
- 4.2.2 Undertake risk assessments of the Mount Grenfell and Mumboana homestead precincts.



**5 LOOKING AFTER *NGURRAMPAA***



## 5. Looking after *ngurrampaa*

### 5.1 Geology and landscape

The park lies close to the north-west edge of the Cobar Peneplain which is formed on the north-west extension of the Lachlan Fold Belt. This geological subdivision dominates New South Wales and Victoria and extends across the south-east portion of the Murray Darling Basin. The Peneplain is mostly rolling downs and plains on Paleozoic bedrock which has been worn down to an almost flat surface over many millions of years. It is punctuated by occasional stony ridges and ranges.

One of these ranges, the Leopardwood Range, runs through the Mount Grenfell Historic Site and the north-east section of the proposed national park. Relief varies between 220 and 360 metres above sea level, with the highest point occurring at Choy Trig (trigonometric station). This main ridge is the catchment divide between Grenfell Creek and Mumboana Creek. The northern and western parts of the historic site are covered by quartz pebble conglomerates and quartz sandstones which were originally deposited in east-flowing rivers on the margin of a shallow sea (Mitchell 2005). The eastern faces of the sandstone ridges have eroded to form the numerous caves and overhangs in the historic site which were used by Ngiyampaa Wangaaypuwan over thousands of years.

The remainder of the park is of low relief and comprises shale and siltstone/mudstone laid down in the Quaternary period (2.58 million years ago to the present). Landforms include wide low-angle slopes, stream channels and floodout areas where creeks spread out across the flat Country. The rock strata at Mount Grenfell have been mapped to the Mulga Downs and Winduck Groups of the early to middle Devonian period, some 390–405 million years ago and known as the age of fishes. Marine fossils of Devonian age have been found just south of the Mount Grenfell Homestead including a site on the west side of Pulpulla Road. These rocks are considered to be similar in age to those found in the Mutawintji area and contain a comprehensive suite of well-preserved fossils, including fish and spines, brachiopods and bivalves.

The park is in red soil Country. The soils comprise mainly red to red-brown loamy sands; fine-textured, shallow and stony in consistency on the rocky crests and slopes, with deeper sandy loams dominating the surrounding undulating flats (Porteners 2010b). Rock weathering at the historic site has produced sculptured rock outcrops often with unusual surface patterns, extensive areas of scattered rocks around outcrops and sufficient iron oxide to colour the soil red or red-brown. There are no sand dunes, but aeolian or wind-blown dust (also known as parna) is present as a significant component of hill slopes and trapped in moss mats on boulders. It is believed that most of the parna at Mount Grenfell probably came from sand dune deserts of central Australia (Mitchell 2005).

Biological soil crusts (cryptogrammic crusts) of algae, lichens and mosses play a very important role in soil dynamics in the arid zone of Australia and are common in the park. Soil crusts contribute to soil stability as well as nitrogen and carbon fixation and soil fertility. Where crusts are damaged, for example by hard-hoofed animals or vehicle movements, they are exposed to sheet erosion and can break down rapidly. Crusts can tolerate some damage but recovery is very slow following severe damage (Australian National Botanic Gardens 2012).

The park lies close to the margin between an arid and semi-arid climate, and is influenced by both summer and winter rains. Water drains in many directions via a system of small unnamed



ephemeral streams to Grenfell and Mumboana creeks. These do not provide permanent water but there are a number of soaks and small waterholes in the park which provide water for some months after rain.

Most stream channels in the park are incised between half and one metre depth. This has been caused by a combination of large volumes of water running off bare rock surfaces and grazing practices since white settlement (Mitchell 2005). Settlers may also have cleared creek beds of obstructions (Beckett et al. 2003). Erosion and sedimentation processes are actively at work on the landscape of the park.

Prior to the introduction of hard-hoofed grazing animals, the landscape of western New South Wales was covered with intact native vegetation communities which included saltbush, a diversity of forbs and palatable native grasses. Much of the park now constitutes a fragile and highly erodible landscape due to an absence of vegetation cover, particularly after extremes of drought. Soil has been compacted at some sites and sheet erosion, scalding and gully erosion are widespread (Porteners 2010b). Erosion has been exacerbated by grazing, rabbits and large numbers of goats. The effects of erosion are greater where drainage lines have become the routes favoured by animals (pads). Along the banks of Mumboana Creek for example, cultural heritage sites are being exposed and destroyed by sheet and gully erosion.

Following acquisition of the remainder of Mount Grenfell Station in 2010, all stock have been removed. Continued pest management will be needed to reduce trampling, grazing pressure and burrowing by rabbits as part of an integrated approach to managing erosion. The most effective way to reduce erosion in the park is the restoration of vegetation cover.

#### **Desired outcome for landscape**

- The landscape values of the park are protected.

#### **Guidelines**

- Active intervention will be required to stabilise sites where moderate to severe erosion is having an impact. Priority will be given to stabilising those sites where Ngiyampaa Wangaaypuwan cultural heritage is being exposed, disturbed or damaged.
- No new roads or trails will be constructed in the park.
- All works in the park will be carried out in a way that reduces soil erosion.

#### **Actions**

- 5.1.1 Prepare a sediment and erosion management plan to address priority sites for remediation where significant cultural values are under threat.
- 5.1.2 Rehabilitate sites where infrastructure which is no longer required has been removed.
- 5.1.3 Restrict all vehicle movements to existing tracks and trails, except where off-track use is required for emergency management purposes or is approved by the Board of Management.



**‘Mount Grenfell means cultural connections to our Country. It’s part of our walking trails, a place where our elders (who know lore) can bring our kids to learn the old traditional way (tribal lore), learn and earn respect for themselves, our elders, the land and animals and plants, and remember our elders (parents, grandparents, great-grandparents) who have gone before us, who have made it possible to return to our tribal lands.’**

Peter Harris, Aboriginal owner on the Mount Grenfell Board of Management

## 5.2 Native plants

Comprehensive vegetation surveys have been carried out in the park, including a survey of the Mount Grenfell Historic Site in 2005, and a survey of the proposed national park and Part 11 land in 2010. The park represents an important component of the conservation estate for the protection of riparian, western peneplain and semi-arid woodland and shrubland communities (Porteners 2010a, b).

Six distinct vegetation communities occur in the park ranging from tall riparian and open eucalypt woodlands to mulga and mallee shrublands. These communities are regionally significant given their poor conservation status in the Cobar Peneplain Bioregion, good condition at the time of survey (after drought-breaking rains) and coverage within the park. Added to this, only 2.95 per cent of the Cobar Peneplain Bioregion is currently protected in conservation reserves and a high proportion of the region has been cleared (Porteners 2010a, b). The vegetation communities present are discussed here.

### Western Red Box – White Cypress Pine Open Woodland

This community is the dominant vegetation community occurring over more than half of the combined area of the park. It also occurs in a mosaic distribution with Mulga – Grey Mallee Shrubland and with a scattered distribution in previously disturbed sites. Western red box communities occupy low to mid-level rocky habitats where lowland woodland communities merge into higher, more exposed, ridge-top shrublands. This can be on terraced slopes, foothills and low rocky ridges or rock platforms, rock shelves, overhangs and caves in rockier landscapes. These mid-range habitats contain some uncommon microhabitats and species, particularly in rocky drainage lines, under protected overhangs, and in the cooler shelter of caves.

**Main species:** Gum coolibah (also known as western red box) (*Eucalyptus intertexta*) and white cypress pine (*Callitris glaucophylla*). Associated canopy species include budda (*Eremophila mitchellii*), wilga (*Geijera parviflora*), mulga (*Acacia aneura*), poplar box (also known as bimble box) (*Eucalyptus populnea* subsp. *bimbil*), ironwood (*Acacia excelsa* subsp. *angusta*) and whitewood (*Atalaya hemiglauca*).

### Mulga – Grey Mallee Shrubland

This community is endemic to the Cobar Peneplain. It occurs on the distinctive high ridges to the north of the park at 250–380 metres above sea level. Habitats include exposed ridge tops, steep upper slopes and undulating gravelly ridges. Soils are stony in composition, shallow or



even skeletal. The community also occurs in a mosaic distribution with Western Red Box – White Cypress Pine Open Woodlands on lower stony foothills and slopes.

Main species: Mulga and grey mallee (*Eucalyptus morrisii*). Associated canopy species include gum coolibah, white cypress pine, wilga, umbrella mulga (*Acacia brachystachya*), kurrajong (*Brachychiton populneus* subsp. *triloba*), whitewood and leopardwood (*Flindersia maculosa*).

### **River Red Gum – Poplar Box Riparian Woodland**

These riparian woodlands occur mainly along Grenfell and Mumboana creeks. This community occupies the lowest, sporadically flooded areas of the landscape including ephemeral depressions where soils are deeper and retain moisture. The community provides a high level of structure and diversity including tree hollows and microhabitats favoured by arboreal mammals. Native and non-native animals alike are attracted to the moderate to very dense layer of native and exotic grasses and forbs of this community, and weed invasion is a key threat to the community. River red gum (*Eucalyptus camaldulensis* var. *obtusata*) dominates the community along the major creeks and drainage lines while poplar box occupies minor creek lines and adjacent flats mainly in the south of the park.

Main species: River red gum and poplar box. Associated canopy species are wilga and budda.

### **Poplar Box – Wilga – Budda Open Woodland**

This community is open woodland with a well-developed, tall woody shrub understorey. It occurs in a patchy distribution on the flat and channelled landscapes along the minor creek lines mainly in the south-east portion of the proposed national park. Several areas of the community occur in a mosaic distribution with Western Red Box – White Cypress Pine Open Woodland mainly on lowland areas below the sandstone ridges. The community supports a high level of structure and diversity including large old-growth trees with hollows for refuge, nesting and feeding. The impacts of goat browsing and some erosion in the form of scalding are evident.

Main species: Poplar box, wilga and budda. Associated canopy species are white cypress pine, gum coolibah, ironwood, rosewood (*Alectryon oleifolius* subsp. *canescens*) and kurrajong.

### **Belah – Rosewood Open Woodland**

There are only three small patches of this vegetation community, all in the vicinity of Mumboana Homestead. It occurs as moderately dense mono-specific stands of belah with scattered rosewood, whereas in other areas these species would more typically occur as co-dominants. Even-aged belah regrowth suggests clearing of this community in the past.

Main species: Belah (*Casuarina pauper*) and rosewood. Associated canopy species are wilga, budda, whitewood, warrior bush (*Apophyllum anomalum*) and leopardwood.

### **Mallee Low Woodland**

One very small patch of this community (1 hectare) was recorded on the western side of Pulpulla Road not far inside the historic site boundary. It occurs on undulating sand plain and isolated areas with deep sands. This patch may be regrowth resulting from a fire or other disturbance event, an introduced and naturalised patch of mallee or a remnant from a pre-cleared more extensive area of mallee.

Main species: Red mallee (*Eucalyptus socialis*). Associated canopy species are white cypress pine, ironwood and hooked needlewood (*Hakea tephrosperma*).





The key species of some vegetation communities have been applied by Ngiyampaa Wangaaypuwan as identifiers. *Pilaarr* or *belah* is the identifier of the Pilaarrkiyalu People – their part of *ngurrampaa* (Country) is where the *belah* tree characteristically grows. Similarly, the Nhiilyikiyalu People take their name from the nealie or needle wattle (*Acacia loderi*).

Within the park, vegetation has been cleared along powerlines, boundary fences and adjacent to roads and trails. The predominant impact on vegetation communities has been grazing by stock and feral goats. Grazing has decreased or modified the understorey and has led to a lack of regeneration of palatable native species. In the absence of stock, grazing pressure is now mostly due to goats. Feral animal control is therefore a high priority for restoring and maintaining the condition of the native vegetation. Fewer feral animals will support improved habitat values for native animals and protect the landscape from the effects of erosion. Table 1 summarises the management issues for each of the vegetation communities.

**Table 1: Management issues for vegetation communities ^**

Community	Area in the park	Management issues	Management actions
<b>1. Poplar Box – Wilga – Budda Open Woodland (Benson 103*)</b>	2115 ha 13.4%	<ul style="list-style-type: none"> <li>• Woody shrub regrowth</li> <li>• Feral animal control (goats)</li> <li>• Regeneration of understorey species</li> <li>• Soil scalding and windsheeting</li> <li>• Total grazing pressure</li> <li>• Weed control (exotic species)</li> </ul>	<ul style="list-style-type: none"> <li>• Grazing management: control total grazing pressure from goats and native herbivores</li> <li>• Weed management: monitor disturbed sites for invasive species and monitor native woody shrub incursion</li> <li>• Artificial water point management</li> <li>• Fire management: avoid too-frequent or intense fires</li> </ul>
<b>2. Western Red Box – White Cypress Pine Open Woodland (Benson 104*)</b>	9935 ha 57.6%	<ul style="list-style-type: none"> <li>• Feral animal control (goats, rabbits)</li> <li>• Regeneration of key species such as western red box</li> <li>• Fire management</li> <li>• Soil scalding and windsheeting</li> <li>• Total grazing pressure</li> <li>• Weed control (native woody shrub species)</li> </ul>	<ul style="list-style-type: none"> <li>• Grazing management: control total grazing pressure to allow for recruitment of tree species</li> <li>• Total grazing pressure: protect key sites from feral herbivores to minimise soil erosion and loss of groundcover species</li> <li>• Weed management: monitor disturbed sites for invasive species and monitor native woody shrub incursion</li> <li>• Fire management: avoid too-frequent or intense fires</li> </ul>



<b>3. Mulga – Grey Mallee Shrubland (Benson 218*, 125*)</b>	2804 ha 16.7%	<ul style="list-style-type: none"> <li>Feral animal control (goats, rabbits)</li> <li>Control of overgrazing by goats is the main management requirement for this community</li> <li>Regeneration of key overstorey species such as mulga and grey mallee and of understorey species</li> <li>Soil scalding and windsheeting</li> </ul>	<ul style="list-style-type: none"> <li>Grazing management: control total grazing pressure to allow for recruitment of mulga</li> <li>Allow seedling establishment of mulga during wet years</li> <li>Total grazing pressure: protect key sites from goats, to minimise soil erosion and loss of groundcover species</li> <li>Fire management: avoid burning or too-frequent fires (mulga may be killed by intense fire)</li> </ul>
<b>4. River Red Gum – Poplar Box Riparian Woodland (Benson 233*, 105*, 208*)</b>	2145 ha 10.9%	<ul style="list-style-type: none"> <li>Protection of riparian and floodplain vegetation from all unnatural disturbances</li> <li>Feral animal control (goats and possibly pigs)</li> <li>Flooding regime for regeneration in riparian sites</li> <li>Soil (gully and sheet) erosion and degradation from pugging and trampling</li> <li>Total grazing pressure</li> <li>Weed control especially in moist sites</li> </ul>	<ul style="list-style-type: none"> <li>Grazing management: protect riparian vegetation from overgrazing by goats and stock</li> <li>Avoid overgrazing and over-trampling of watercourses to minimise soil erosion and loss of groundcover species</li> <li>Weed management: control exotic species infestation (Bathurst burr, variegated thistle, Paterson's curse, fierce thornapple)</li> <li>Fire management: fire is infrequent due to fragmentation and occurrence near watercourses</li> </ul>
<b>5. Belah – Rosewood Open Woodland (Benson 57*)</b>	167 ha 0.8%	<ul style="list-style-type: none"> <li>Feral animal control (goats, rabbits)</li> <li>Regeneration of key species such as belah and rosewood</li> <li>Fire management</li> <li>Soil scalding and windsheeting</li> </ul>	<ul style="list-style-type: none"> <li>Grazing management: control total grazing pressure to allow for recruitment of belah and rosewood by seedlings and suckers</li> <li>Protect key sites from both feral and native herbivores to minimise soil erosion and loss of groundcover species</li> </ul>
<b>6. Mallee Low Woodland (Benson 174*)</b>	1 ha <1%	<ul style="list-style-type: none"> <li>Total grazing pressure</li> <li>Weed control (native woody shrub species)</li> <li>Protection of sites near artificial watering points (belah – rosewood) and roadside vegetation (mallee).</li> </ul>	<ul style="list-style-type: none"> <li>Weed management: monitor disturbed sites for native woody shrub incursion</li> <li>Fire management: avoid burning or too-frequent fires that can eliminate key species such as mallee</li> </ul>

<sup>^</sup> Adapted from Porteners (2010a & b).

<sup>\*</sup> Benson, JS (2006).

A total of 234 native plant species have been recorded in the park. This includes species recorded in the 2010 survey during wet lush conditions after more than 10 years of drier than average conditions (drought).

Eleven species found in the park are restricted or of regional significance as shown in Table 2.



**Table 2: Plant species of scientific significance located within the park ^**

Common name	Species name	Status/significance	Threats
Woolly cloak fern	<i>Cheilanthes lasiophylla</i>	Restricted distribution within Western Division of NSW. Wide interstate range across Australia.	Feral goats, trampling by visitors, total grazing pressure and inappropriate fire regimes.
Silver turkeybush	<i>Eremophila bowmanii</i> subsp. <i>bowmanii</i>	Significant for the park and region.	Overgrazing by goats and inappropriate fire regimes.
Grey mallee	<i>Eucalyptus morrisii</i>	Significant for the park and region.	Overgrazing by goats and inappropriate fire regimes.
Pennywort	<i>Hydrocotyle tripartita</i>	Significant for the park and region occurring as an inland range extension (west).	Total grazing pressure.
Lobed bluebush	<i>Maireana lobiflora</i>	Significant for the park and region. Range extension into NW Plains Botanical subdivision.	Grazing, particularly during dry conditions – therefore feral goats, total grazing pressure and droughts.
Fairy spectacles	<i>Menkea australis</i>	Restricted distribution within Western Division of NSW. Wide interstate distribution.	Grazing, clearing, feral goats, rabbits, roadside disturbances and inappropriate fire regimes.
Creeping monkey-flower	<i>Mimulus repens</i>	Significant for the park and region. Range extension for the region.	
Long tails	<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	Restricted distribution within western region.	
Wiry spurge	<i>Sauropus ramosissimus</i>	Rare or threatened Australian plant. Distribution in Australia less than 100 km; poorly known and reserved; population size poorly known	Likely depleted in Western NSW due to clearing and grazing. Goats pose the most significant threat to the populations in the park.
Shy nightshade	<i>Solanum cleistogamum</i>	Significant for the park and region.	
Bull-head	<i>Tribulus eichlerianus</i>	Significant for the park and region.	

^ Adapted from Porteners (2010a & b)

Plants present in the park also hold practical significance for Ngiyampaa Wangaaypuwan. Those used for food include the seeds of a range of plants such as *Yaama* (kurrajong), *Mithirr* (miljee), nardoo, *Kawanthaa* (quandong), *Wilkarr* (wilga) and *Yarrayipipan* (rosewood), all of which were ground for flour and baked into johnny cakes. The numerous grinding dishes now



found along Mumboana Creek within the proposed national park indicate that flour-producing seeds were an important food source.

Medicinal uses of plants included *Puthaputhay* (sneezeweed), which was used for relieving the pain of arthritis and *Thiku* (emu bush), which was used for the treatment of skin problems and for curing stomach ulcers. The bark from the roots of the *Karapaar/Puratharr* (Keewong People/Trida People) (white cypress pine) and *Wilkarr* (wilga) were used to splint broken bones.

The fibres of plants were used to make string, rope and fishing line such as the inside of *Yaama* (kurrajong) bark. *Ngarrkaray* (leopardwood) was used to make boomerangs and ornaments.

### Desired outcomes for native plants

- All vegetation communities in the park are protected and conserved, particularly communities and species considered to be regionally significant.
- Vegetation structural diversity and habitat values are improved where they have been subject to disturbance.
- The cultural values of native plants in the park are recognised.

### Guidelines

- Values of vegetation communities will be restored and conserved by a combination of passive protection measures and active interventions such as feral pest management (see Section 5.4.1).

### Actions

- 5.2.1 Monitor the condition of regionally significant vegetation communities and plant species and implement specific protection measures as necessary (see Table 1).
- 5.2.2 Promote restoration of groundcover and understorey vegetation in disturbed areas through continued management of total grazing pressure and monitoring of other threats.

**'I love to take my grandchildren with me out to the bush to learn them how to respect and care for our Country, how to live off the land as our elders have taught us.'**

Josephine Harris, Aboriginal owner and deputy on the Mount Grenfell Board of Management

## 5.3 Native animals

A number of vertebrate fauna surveys have been carried out in the park including:

- *Investigating Fauna Distribution on the Cobar Peneplain*, the 'Cobar Peneplain Project' (Masters and Foster 2000)
- *Vertebrate Fauna Survey of Mount Grenfell Historic Site, October 2005* (Aspect North 2005)



- 'Baseline Vertebrate Fauna Survey, Mount Grenfell Addition, NSW', (JG Environmental Consulting 2011).

The park supports a range of habitat types with varying degrees of structural complexity and floristic diversity, including: poplar box flats and drainage lines, river red gum creek lines, gum coolabah, mallee, mulga shrublands, and areas of exposed rock. As a result, there are a variety of habitat and resources for a diversity of tree-dwelling and ground-dwelling animals. Important habitat features include semipermanent waterholes, mature trees with hollows, leaf litter, sandy soils for burrows, caves and rocky escarpments, and dense shrubby vegetation. There are also a variety of food resources, particularly after rain, such as mistletoes, abundant insects, native grasses, and flowering trees and shrubs.

This diversity of available habitats is reflected in the number of species recorded in the park. From the combined records of surveys and opportunistic sightings, the park is known to support 195 native animal species including 134 birds, 34 reptiles, 20 mammals and 7 amphibians. Thirteen of these are listed threatened species under the TSC Act (see Table 3). The most diverse groups of animals recorded are bats (13 species) and birds (134 species).

Of the ground-dwelling mammals dependent upon ground layer and mid-layer/shrubby components that are expected to occur in the park, only three have been detected. They are the kultarr (*Antechinomys laniger* – a type of marsupial mouse), the narrow-nosed planigale (*Planigale tenuirostris*) and the common dunnart (*Sminthopsis murina*). The lack of diversity among small mammals may be partly due to difficulties in detecting these species but also mirrors the situation across the Cobar Peneplain more broadly. The cause is believed to be high numbers of pest animals (see Section 5.4). Eighteen native animal species are now listed as extinct across New South Wales (nearly all mammals) and an additional 11 species are also likely to be extinct in the bioregion (NSW NPWS 2001). Species which depend upon groundcover or understorey vegetation are under the greatest pressure.

**Table 3: Threatened animal species known or predicted to occur within the park**

Common name	Scientific name	TSC Act status	EPBC Act status
<b>Birds</b>			
Major Mitchell's cockatoo	<i>Lophochroa leadbeateri</i>	V	
Little eagle	<i>Hieraaetus morphnoides</i>	V	
Hooded robin (south-eastern form)	<i>Melanodryas cucullata cucullata</i>	V	
Hall's babbler	<i>Pomatostomus halli</i>	V	
Grey-crowned babbler (eastern subspecies)	<i>Pomatostomus temporalis temporalis</i>	V	
Chestnut quail-thrush	<i>Cinclosoma castanotum</i>	V	
Varied sittella	<i>Daphoenositta chrysoptera</i>	V	
Superb parrot <sup>^</sup>	<i>Polytelis swainsonii</i>	V	V
Australian painted snipe <sup>^</sup>	<i>Rostratula australis</i>	E	E
Barking owl <sup>^</sup>	<i>Ninox connivens</i>	V	
Australian bustard <sup>^</sup>	<i>Ardeotis australis</i>	E	
Pied honeyeater <sup>^</sup>	<i>Certhionyx variegatus</i>	V	
Painted honeyeater <sup>^</sup>	<i>Grantiella picta</i>	V	
Spotted harrier <sup>^</sup>	<i>Circus assimilis</i>	V	



Common name	Scientific name	TSC Act status	EPBC Act status
<b>Mammals</b>			
Kultarr	<i>Antechinomys laniger</i>	E	
Stripe-faced dunnart ^	<i>Sminthopsis macroura</i>	V	
Yellow-bellied sheath-tail-bat	<i>Saccolaimus flaviventris</i>	V	
Bristle-faced freetail-bat ^	<i>Mormopterus eleryi</i>	E	
Little pied bat	<i>Chalinolobus picatus</i>	V	
Inland forest bat	<i>Vespadelus baverstoki</i>	V	
Corben's long-eared bat	<i>Nyctophilus corbeni</i>	V	V
<b>Reptiles</b>			
Western blue-tongued lizard ^	<i>Tiliqua occipitalis</i>	V	

^ = predicted to occur; V = Vulnerable; E = Endangered

Source: Data collated from Aspect North 2005; JG Environmental Consulting 2011; and NSW Wildlife Atlas Feb 2012.

The park is in a significant location at the junction of the Bassian (temperate climate) and Eyrean (semi-arid climate) biogeographic zones which is evidenced, for example, by the presence of both western and eastern forms of bearded dragon (*Pogona barbata*) (Aspect North 2005). A number of species occur at or near their distributional limits, including the beaked gecko (*Rhynchoedura ornata*) and the chestnut-breasted quail-thrush (*Cinclosoma castaneothorax*). Species such as these are at an increased risk of extinction with more extreme temperatures predicted under climate change. Other species at risk include insectivorous micro-bats which have a narrow range of thermal requirements and are highly sensitive to roosting temperatures, particularly in maternity colonies.

A high diversity of bird species has been recorded in the park and Birdlife Australia has located survey sites for the Birds Australia Bird Atlas within the park.

A number of direct and indirect threats to native animals and their habitat values are occurring in the park. Native animals are most threatened by habitat degradation due to introduced species, namely goats, pigs and rabbits. In addition to habitat damage and modification, grazing by introduced species increases competition for resources with native herbivores and limits vegetation regeneration. Halting habitat degradation, particularly by feral goats, is critical to retaining the conservation value and long-term persistence of native species' diversity in the park.

Strategies for the recovery of threatened species, populations and ecological communities have been set out in a statewide *Threatened Species Priorities Action Statement* (DECC 2007). These actions are currently prioritised and implemented through the Saving Our Species program which aims to maximise the number of threatened species that can be secured in the wild in New South Wales for 100 years (OEH 2013c). Individual recovery plans may also be prepared for threatened species to consider management needs in more detail. Specific recovery plans have been prepared for the kultarr and the barking owl.

#### Desired outcomes for native animals

- The habitat and populations of native animals including threatened species within the park are conserved.



- Threats to native animal populations are reduced or eliminated.

### Guidelines

- Ngiyampaa Wangaaypuwan knowledge of native animals and their habitats will be used to supplement scientific knowledge.
- Where possible Ngiyampaa Wangaaypuwan People and NPWS staff will collaborate in fauna surveys and monitoring of habitat to facilitate information sharing.

### Actions

- 5.3.1 Implement relevant recovery actions in the *Priorities Action Statement* for threatened animal species and populations occurring in the park.
- 5.3.2 Protect the habitats of native animals in the park by addressing habitat degradation processes including the effect of introduced species.
- 5.3.3 Continue to record native animals in the park. All records will be added to the Atlas of NSW Wildlife.
- 5.3.4 Work with Ngiyampaa Wangaaypuwan People to record cultural knowledge of native animals.

**'We want young people to go to university and become rangers, get that education to be able to look after this place.'**

Richard Kennedy, Aboriginal owner on the Mount Grenfell Board of Management

## 5.4 Pest animals

NPWS prepares regional pest management strategies which identify pest species across that region's parks and priorities for control, including actions listed in the *Priorities Action Statement*, threat abatement plans and other strategies.

The NPWS *Regional Pest Management Strategy 2012–17: Western Rivers Region – A new approach for reducing impacts on native species and park neighbours* (OEH 2012) identifies pest species and priority programs for the park. The overriding objective of the pest management strategy is to minimise adverse impacts of introduced species on biodiversity and other park and community values while complying with legislative responsibilities. The strategy also identifies where other site- or pest-specific plans or strategies need to be developed to provide a more detailed approach.

Twelve pest animal species have been recorded in the park. Of these, the feral goat (*Capra hircus*), feral pig (*Sus scrofa*), European rabbit (*Oryctolagus cuniculus*), European red fox (*Vulpes vulpes*) and the feral cat (*Felis catus*) pose the greatest threat to biodiversity. Predation, competition, grazing and habitat degradation by these pest animals are listed as key threatening processes under the TSC Act (NSW SC 1998, 2000, 2002, 2004a, 2004b), recognising they affect the survival, abundance or evolutionary development of a native species or ecological community. The Board of Management and NPWS have determined that feral goats are the highest priority for pest management in the park.



## **Feral goats**

Feral goats have had an impact at the Mount Grenfell Historic Site in the past by rubbing against rock surfaces and damaging the rock art and fouling the shelters. This led to the construction of heavy duty mesh barriers around the art sites. Controlling goats within the historic site is difficult because there are no suitable locations for trapping, and aerial shooting is not possible because it could result in damage to Aboriginal sites (NSW NPWS 2009). The acquisition of the former Mount Grenfell Station has greatly improved the capacity to manage goats on the historic site and was a motivation for purchasing the property. Goat control can now be carried out by manipulating and/or reducing access to water and using other methods on the proposed national park and Part 11 land.

Apart from the damage to rock art, goats have been identified as a threat to the vegetation in the park, eating ground cover plants, limiting regeneration of shrub and canopy species and spreading weeds. The impacts of goats are most evident during drought when they maintain pressure on stressed landscapes and vegetation communities whereas other species, such as kangaroos, noticeably decline or migrate during these times. Trampling by goats increases areas of bare ground and the risk of erosion, and disturbs ground habitat for native animals. Along the banks of Mumboana Creek in the proposed national park, goat movement is disturbing and possibly destroying Aboriginal cultural objects.

Goats are notoriously difficult to control as they can consume almost anything and are very difficult to confine effectively. The control of goats is made more difficult because there are high densities of goats in areas surrounding the park.

In this context, eradication of goats from the park is an unrealistic goal. Nevertheless the goat population can be reduced under a multifaceted ongoing control program. Manipulating access to water has proved an effective control method for goats, particularly during dry periods when natural surface water is scarce. However, the effectiveness of control is increased where trapping of goats at water points is combined with other measures including strategic exclusion fencing and overland mustering. Aerial shooting may be also used outside the historic site subject to approval by the Board of Management. Using a combination of methods is likely to be more effective given that the park contains a variety of terrains, and goat numbers vary in response to seasonal conditions and the availability of water and forage on adjoining lands. An integrated and strategic approach to goat control will also minimise the impacts of goats dispersing into the park from adjacent properties.

The presence of sensitive cultural or natural heritage will also guide the approach to goat control within the park.

## **Feral pigs**

The effects of feral pigs have been observed in creek lines and wherever moist ground occurs in the park. Pigs can cause major disturbance and damage to soils, roots, ground flora and wetland environments as well as cultural sites and objects. These areas are then opened up to weed invasion and soil erosion.

Pigs occur intermittently in the park and populations are thought to be transient. Control efforts are therefore undertaken opportunistically and include live trapping, poisoning with 1080 baits and ground shooting. Culling as part of an aerial shooting operation may be used outside the historic site subject to approval by the Board.





## Other pests

Foxes suppress native animal populations, particularly medium-sized, ground-dwelling and semi-arboreal mammals, ground-nesting birds and freshwater turtles. The lack of records for these animals in the park is largely attributed to the severity of goat impacts, however, predation by foxes compounds these effects. As foxes are known to prey on domestic stock, including lambs and poultry, the European red fox is a declared pest in New South Wales under the *Local Land Services Act 2013*.

The control of foxes is a recovery action for the endangered kultarr. Foxes have also been implicated in the spread of a number of weed species. Baiting programs are undertaken periodically.

Rabbits are contributing to total grazing pressure and disturbance of sandy soils in the park. Ripping of rabbit burrows is not appropriate in sensitive areas. Alternative methods such as fumigation and baiting are used.

Predation by feral cats has been implicated in the extinction and decline of many species across Australia and has been linked to the disappearance of 13 species of mammals and 4 species of birds from the Western Division of New South Wales by the mid-19th century (NSW SC 2000). Many more native species are potentially at risk of becoming listed as threatened species as a result of cat predation. Within the park, small mammals such as the common dunnart and the kultarr, and ground-nesting birds are particularly at risk.

Cats have been recorded in the park but as yet there is no known method for strategic control of cats. Given that ground-nesting birds and mammals have been recorded only rarely, opportunistic control of cats should continue.

## Desired outcome for pest animals

- The impact of pest animals is minimised.

## Guidelines

- The reduction and removal of goats will be the highest priority for pest control in the park. Other pest species will also be controlled.
- Control of pest animals will be carried out in accordance with the regional pest management strategy, threat abatement plans for specific pest species and the *Priorities Action Statement* for threatened species.
- NPWS will endeavour to engage other stakeholders to develop a coordinated approach to managing feral goat populations.
- The Board of Management and NPWS will work with neighbouring landholders to minimise the risk of stock straying into the park.
- No aerial shooting is to occur within Mount Grenfell Historic Site.

## Actions

- 5.4.1 Manage pest species in accordance with the regional pest management strategy and other strategies as relevant.
- 5.4.2 Develop and implement a plan for feral goat control in the park.
- 5.4.3 Control feral species in cooperation with Western Local Land Services and neighbouring landholders.



5.4.4 Continue to collect information about pest species distribution and populations in the park.

## 5.5 Pest plants

NPWS prepares regional pest management strategies which identify pest species across that region's parks and priorities for control, including actions listed in the Priorities Action Statement, threat abatement plans, and other strategies such as the NSW *Biodiversity Priorities for Widespread Weeds* (NSW DPI & OEH 2011).

The NPWS *Regional Pest Management Strategy 2012–17: Western Rivers Region – A new approach for reducing impacts on native species and park neighbours* (OEH 2012) identifies pest species and priority programs for the park. The overriding objective of the pest management strategy is to minimise adverse impacts of introduced species on biodiversity and other park and community values while complying with legislative responsibilities. The strategy also identifies where other site- or pest-specific plans or strategies need to be developed to provide a more detailed approach.

Weeds are not widespread in the park. However, large numbers of pest plants were recorded in several locations following good rains in early 2010. Several of these are serious invaders or have the potential to become problematic for future vegetation management (Porteners 2010a, b). The highest levels of infestation were in riparian areas and drainage depressions that retain moisture, while scalded areas, sites of windsheeting, floodouts and other run-on areas are also favoured habitats. Pest plants also coincide with areas frequented by goats. The main species of concern are listed in Table 4.

**Table 4: High priority pest plants in the park**

Common name	Scientific name	Comment
Bathurst burr *#^	<i>Xanthium spinosum</i>	Riparian sites; distributed to drier areas by goats.
Noogoora burr *#^	<i>Xanthium occidentale</i>	Riparian sites; distributed to drier areas by goats.
Variegated thistle *	<i>Silybum marianum</i>	Riparian sites; distributed to drier areas by goats.
Saffron thistle #	<i>Carthamus lanatus</i>	
Paterson's curse *#^	<i>Echium plantagineum</i>	Riparian sites; distributed to drier areas by goats.
Common sowthistle *	<i>Sonchus oleraceus</i>	Scalded plains and riparian communities.
Maltese cockspur *	<i>Centaurea melitensis</i>	Scalded plains and riparian communities.
White horehound *	<i>Marrubium vulgare</i>	Scalded plains and riparian communities.
Velvet mesquite *~	<i>Prosopis velutina</i>	Weed of National Significance. Scalded plains and riparian communities.
African boxthorn *#^~	<i>Lycium ferocissimum</i>	Weed of National Significance. Scalded plains and riparian communities. Isolated infestations – restricted to small area.



Common name	Scientific name	Comment
Onion weed #^	<i>Asphodelus fistulosus</i>	
Rosy dock #^	<i>Acetosa vesicaria</i>	Riparian sites.
Jerusalem thorn ^~	<i>Parkinsonia aculeata</i>	Weed of National Significance. Isolated infestations – restricted to small area.
Prickly pear ^	<i>Opuntia</i> spp.	Isolated infestations – restricted to small area.

Sources:

\* Porteners 2010a, b

# DPI, OEH and NSW Catchment Management Authorities 2011

^ Western Rivers Regional Pest Management Strategy 2012–17

~ Weed of National Significance

The 'prickly weeds' (African boxthorn, velvet mesquite, and Jerusalem thorn) are Weeds of National Significance. As such, NPWS has a statutory obligation to control them. The majority of other weeds are 'broad-leaved' species and their abundance and impact varies significantly relative to environmental conditions. In general, broad-leaved weeds are controlled in the park using herbicides. The prickly weeds are likely to need a range of control methods including herbicide application, cut and paste, and burning.

Weed control needs to take into account the sensitive values of the park. For example, vehicle movement off tracks can damage cultural objects, spread weed seeds and damage biological soil crusts. Use of herbicides should also be approached with caution in the vicinity of art sites on Mount Grenfell Historic Site to avoid the risk of chemical damage to rock art.

### Desired outcome for weeds

- The impact of weeds on native plants, animals and cultural values is minimised.

### Guidelines

- Control of weeds will be carried out in accordance with the regional pest management strategy.
- All staff undertaking weed control activities will be trained in cultural site protection to ensure prevention of harm to art sites, objects and sites.

### Actions

- 5.5.1 Map prickly weed infestations and implement a control program for their eradication.
- 5.5.2 Undertake weed management in cooperation with Western Local Land Services and neighbouring landholders.

## 5.6 Fire

The primary objectives of the Board of Management and NPWS fire management are to protect life, property, community assets and cultural heritage from the adverse impacts of fire, while also managing fire regimes in parks to maintain and enhance biodiversity. NPWS also assists in developing fire management practices that contribute to conserving biodiversity and cultural



heritage across the landscape, and implements cooperative and coordinated fire management arrangements with other fire authorities, neighbours and the community (OEH 2013a).

Knowledge of fire history at Mount Grenfell since European settlement is extremely limited. There is no record of fire at the historic site since the 1950s and the history of fire on the proposed national park, Part 11 land and neighbouring properties is unknown.

Fire is now rare in semi-arid woodland and shrubland communities compared to pre-European times (Porteners 2010b). Fire ecology is poorly known for the vegetation communities of western New South Wales. Fire responses of many plant species are unknown and ongoing experimental research is needed at both species and community levels. Observations of community structure made during the vegetation surveys in the park, including low ground biomass and the prevalence of bare ground, indicate that fire is unlikely to play an integral role in maintaining the vegetation communities in the park. With the removal of stock when Mount Grenfell Station was acquired, it is possible that groundcover will increase over time. This could alter fire risk and fire behaviour in some communities, however, fire risk is generally low and optimal intervals between fires for most vegetation types is 20–50 years.

A fire management strategy has been prepared for the park (OEH 2013b). It takes into account the indicative fire regimes and protocols recommended for the various vegetation communities in the Porteners vegetation surveys (Porteners 2010a, b). The strategy includes perimeter fire trails and establishes asset protection zones for the art sites and day use area at the historic site, the Mumboana and Mount Grenfell Homestead precincts, and other built assets. Special provisions have been incorporated in recognition of the cultural and environmental sensitivity of much of the landscape, for example, restrictions on the use of heavy machinery and fire retardants.

In the future more frequent wildfires could occur as a result of higher summer rainfall and higher temperatures under climate change predictions. This will in turn increase the possibility of very large wildfires sparked by lightning strikes in vegetation types previously unable to support large fires, such as the poplar box, cypress pine and mulga woodlands of the Cobar Peneplain (DECC 2010).

The Board of Management and NPWS maintain cooperative arrangements with surrounding landholders and the Rural Fire Service and are members of the Cobar Bush Fire Management Committee.

#### **Desired outcomes for fire**

- Persons and property are protected and the potential for wildfire is minimised.
- Aboriginal cultural heritage and historic heritage values are protected.
- Fire management in the park combines scientific and traditional knowledge systems.

#### **Guidelines**

- A precautionary approach should be adopted for fire management in the park because fire ecology for vegetation communities in western New South Wales is poorly understood. Too-frequent and/or intense fire should be avoided.
- Information and mapping for the occurrence, extent and behaviour of fire in the park and adjoining lands will be recorded as available, to contribute to ongoing research into fire ecology.



- Use of heavy machinery will be avoided for hazard reduction and other fire management activities unless approved by NPWS and the Board of Management.

## **Actions**

- 5.6.1 Implement the fire management strategy for the park.
- 5.6.2 Support research to determine fire ecology at species and community levels.

## **5.7 Climate change**

Human-induced climate change is listed as a key threatening process under the TSC Act (NSW SC 2000a) and the associated loss of habitat is listed under the EPBC Act (TSSC 2001). For the western region of New South Wales, projections of future changes include increasing temperatures; increases in summer rainfall; decreases in winter rainfall; increases in evaporation throughout the year; increases in the extremity of the impacts of the El Niño–Southern Oscillation; increases in evaporation leading to drier soil conditions throughout the year; the severity of droughts is likely to remain the same and a minor increase in runoff is projected (DECC 2010).

Reduced plant growth and cover, caused by poorer growing conditions including soil drying, is likely to leave many soils vulnerable to increased sheet, rill and gully erosion exacerbated by heavy downpours during more frequent, intense storms. Wind erosion is also likely to increase. Changes to rainfall and runoff are likely to affect Aboriginal cultural heritage values including the loss of culturally significant trees and damage to ceremonial sites.

Climate change is likely to place additional pressure on communities sensitive to grazing. Regeneration in ecosystems currently hindered by heavy grazing and browsing is likely to be further constrained by adverse climatic conditions, contributing to their ongoing decline.

Hotter and drier conditions predicted for the peneplain are likely to impact all natural ecosystems in the region. The worst affected ecosystems are likely to be those already under substantial threat. Pests, weeds and the occurrence of major wildfires are likely to have an increasing impact. Some native species are likely to be reduced in numbers, contract in range or be lost from the region altogether, while hardier species persist. Ecosystem processes such as nutrient cycling are also likely to be affected.

The combination of increased temperatures, greater temperature extremes, favourable conditions for pests and weeds and large wildfires is likely to impact on the region's natural ecosystems. These changes will add to the substantial impacts on biodiversity already stemming from past and current land uses such as unsustainable water extraction and overgrazing. Hardy, unpalatable, or mobile species adapted to high temperatures are likely to be more resistant to the effects of climate change. The resilience of ecosystems to climate change impacts is likely to be enhanced by improvements to current land-use practices.

It is the responsibility of land managers to manage the process of adapting to climate change. For the Board of Management and NPWS this means continuing to manage all threats to the cultural and natural values of the park. Continuing programs to reduce the pressures arising from other threats, such as habitat fragmentation, invasive species, and bushfires, will help reduce the severity of the effects of climate change.

### **Desired outcome for climate change**

- The resilience of the park to the effects of climate change is enhanced.



## Guideline

- Information about the specific effects of climate change on natural and cultural values in western New South Wales will be added to as research continues. This may assist in planning for the future management of the park.

## Action

- 5.7.1 Continue existing fire, pest and weed management programs to increase the ability of the park to cope with climate change, and encourage research into appropriate indicators to monitor the effects of climate change.





## **6 SHARING *NGURRAMPAA***



## 6. Sharing *ngurrampaa*

Visitors have been coming to see the awe-inspiring rock art at Mount Grenfell since the 1960s when former landholders first opened the site for public use. Under the early days of NPWS management the art sites were enclosed with protective fencing and visitor facilities provided.

Following handback of the historic site to Ngiyampaa Wangaaypuwan traditional owners in 2004, the Board of Management and NPWS identified an opportunity for visitors to learn more about cultural values and the significance of the site for Ngiyampaa Wangaaypuwan beyond appreciation of rock art. The guiding principle of managing tourism at the historic site will continue to be the protection of the rock art and other cultural values.

Visitors are encouraged to be aware of their surroundings and to tread lightly on *ngurrampaa*. This means it is not appropriate to touch rock art; and Aboriginal objects which are clearly visible on the ground, such as stone-worked tools, must be left in situ.

### 6.1 Visitor facilities

Mount Grenfell Historic Site provides opportunities for natural and culturally based recreation including appreciation of the cultural landscape and rock art sites, bushwalking and birdwatching. Visitor use at the historic site was assessed in consultation with the first Board of Management (Gondwana Consulting 2006) to ensure that visitation is culturally and operationally appropriate. This assessment produced a number of options for visitor use which are being implemented progressively.

The main attraction for visitors is the rock art in a series of six main galleries formed by rock overhangs. Visitors are able to view the rock art on a self-guided basis by means of interpretive panels and markers along formed stone paths. These art sites are part of a complex of Ngiyampaa Wangaaypuwan art sites in the region and are recognised as nationally significant for their high conservation value (see Section 3.5). Visitors must remain on formed tracks and within the confines of the day use area to protect Ngiyampaa Wangaaypuwan sites and reduce the risk of erosion.

At the end of the track through the rock art galleries, a loop trail over the ridge allows visitors the option of returning to the carpark by a different route (see Map 3). A 5-kilometre walk, the Ngiyampaa Walkabout Track, is also accessed at the end of the rock art galleries. This longer walk requires upgrading and improved signage.

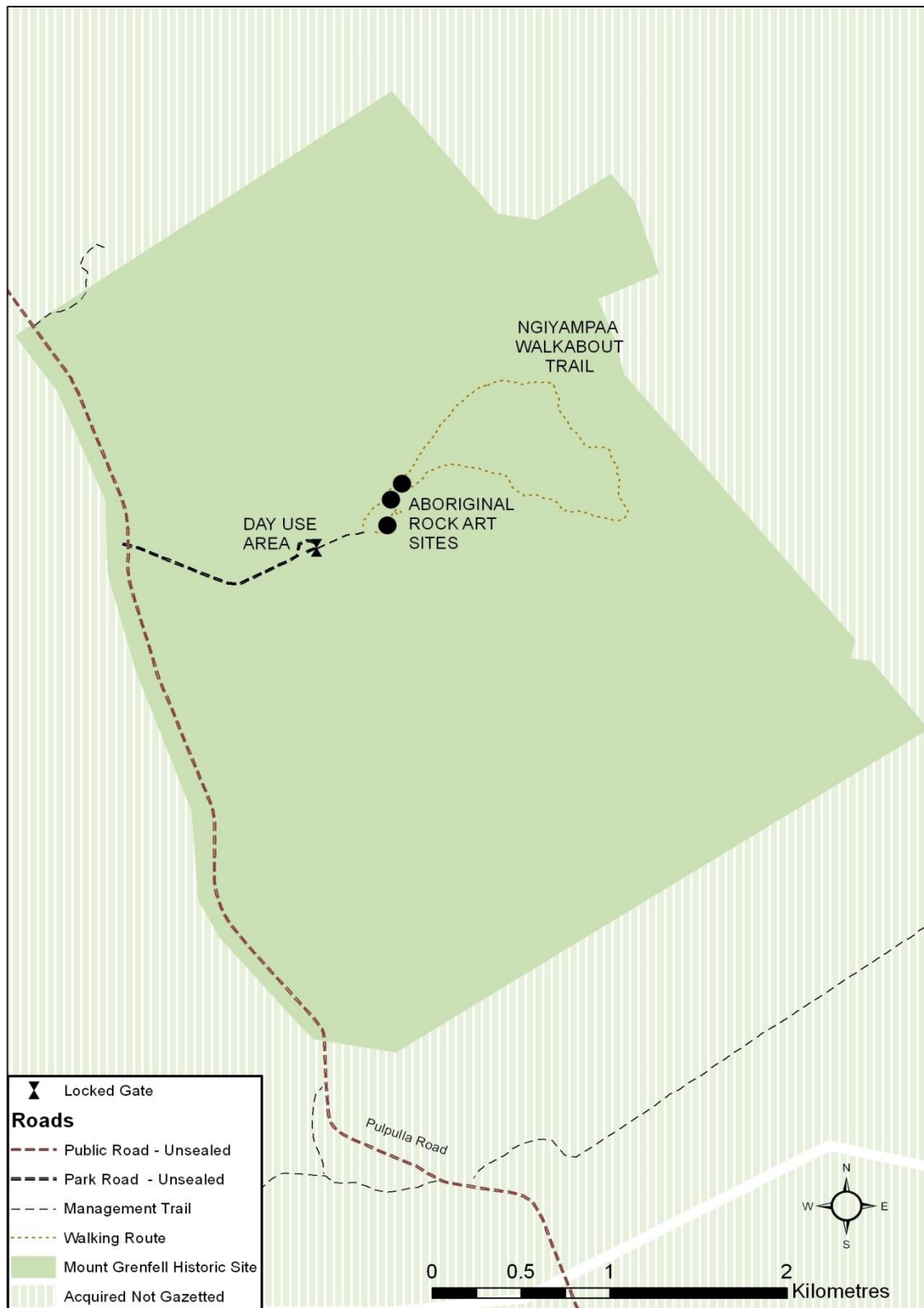
A day use area adjoining the carpark at the entrance to the historic site provides gas barbecues, picnic tables, shelters and toilets (see Map 3). A rainwater tank provides water for the picnic shelter depending on the season. Based on current visitor levels, the Board of Management considers there is no need to provide any additional facilities at the historic site.

Closer to the art sites is a former picnic area originally established by owners of Mount Grenfell Station when they first opened the area to visitors. There is an old stone barbecue which will be retained in memory of the former owners, and a shelter and pit toilet which will be decommissioned. There are currently no visitor facilities on the proposed national park but the Board of Management and NPWS have indicated a low level of visitor infrastructure could be considered provided it does not impact on cultural heritage and sensitive natural values. This could include interpretation and signage at the site of the Mount Grenfell Station Homestead.





**Map 3: Mount Grenfell Historic Site visitor facilities**





There is also potential for a small basic camping and day use area near Pulpulla Road between the southern boundary of the proposed national park and the southern boundary of the historic site. If developed, visitors will need to bring gas stoves for cooking because campfires will not be permitted. A short interpretive walk could be developed adjoining the camping and day use area.

It is important that visitor infrastructure is located, designed and managed in keeping with the cultural landscape values of the park. Visitor infrastructure must not impact cultural or natural heritage values. Due to the high density and broad distribution of cultural sites and objects, sites for development of a camping area are limited.

The historic site generally experiences low visitation but there is a risk that even low numbers of visitors can cause damage in this sensitive landscape, for example by wearing a path or trampling vegetation resulting in erosion. A visitors' book is currently available at the start of the walk to the rock art galleries but filling out the book is voluntary, so it is not a reliable record of visitor numbers. A more systematic way of recording visitor numbers will help with managing the park and aid visitor planning.

#### **Desired outcome for visitor use**

- Low-key opportunities to enjoy and appreciate the cultural and natural values of the park are provided for visitors.

#### **Guidelines**

- Mount Grenfell Historic Site will remain the main focus for day visitors. Camping will not be allowed on the historic site unless associated with activities approved by the Board of Management.
- Access to parts of the historic site may occasionally be restricted for the purposes of cultural activities.
- Small-scale visitor infrastructure may be considered for the proposed national park, but only where it can be unobtrusive and where there is no risk to cultural or natural values.
- No solid fuel fires will be permitted for visitor use.
- Camping, other than in a camping area provided on the proposed national park, will not be permitted.
- Visitors are permitted to drive vehicles and cycle on designated roads only (see Map 1).
- Horses and other animals, unregistered vehicles and adventure activities will not be permitted in the park.

#### **Actions**

- 6.1.1 Investigate suitable sites and, if a site can be found, develop a small camping area adjoining Pulpulla Road in the proposed national park which will provide up to six campsites, picnic tables, a toilet and possibly an interpretive walk (see Map 1).
- 6.1.2 Upgrade the loop trails and remainder of the track through the rock art galleries.
- 6.1.3 Monitor visitor numbers to the park by means of a visitors' book and/or other measures. Information should be collected separately for the historic site and the proposed national park.
- 6.1.4 Remove the original toilet, picnic table and shelter constructed by former landholders at the track head to the art sites on the historic site and rehabilitate the area. The stone



barbecue will be retained (see Section 6.2) but will not be available for use as a barbecue.

**'It's that connection which is really quite powerful ... Come and see it, it's a lovely experience.'**

Marie Russell, Landholder Representative on the Mount Grenfell Board of Management.

## 6.2 Interpreting Ngiyampaa values for visitors

An interpretation plan has been prepared for the historic site (Godden Mackay Logan 2006) and the first stage of signage completed for the walking track leading to, and through the art sites. Visitors are able to view the rock art on a self-guided basis by means of well-formed stone paths and a series of interpretive signs. The signs include a small amount of information about a wide range of subjects, together with artwork and individual words in Ngiyampaa language. There is also an introductory panel at the start of the track which provides a map for orientation and a brief outline of Ngiyampaa life in the dry Country, caring for the land, how the rock art was painted, the geology of the Country, and the story of Edmund Milne, a collector of Aboriginal artefacts.

It is essential that interpretation reflects the cultural importance of the park to Ngiyampaa Wangaaypuwan and delivers a 'cultural voice' in the interpretation of Ngiyampaa Wangaaypuwan culture. The existing signage needs some improvement in these aspects. It is also important that interpretation covers the full breadth of cultural values and is extended to take in the whole park as well as *ngurrampaa* more broadly.

Talking to visitors in person is also an effective means for Ngiyampaa Wangaaypuwan to interpret Ngiyampaa Wangaaypuwan values. Guided walks of the historic site have been organised through the NPWS Discovery program on an irregular basis, and there is potential for this program to expand and better engage with local organisations.

### Desired outcome for interpreting Ngiyampaa culture

- Interpretation of the park reflects Ngiyampaa Wangaaypuwan culture and is undertaken by and through Ngiyampaa People.

### Guidelines

- All interpretive material for the park will include the 'voice' of the Ngiyampaa Wangaaypuwan as traditional owners and cover the full range of cultural values, including the cultural importance of water for Ngiyampaa Wangaaypuwan.
- Interpretation of the park will include a variety of media, including written material, oral presentations, digital media and web-based information.
- Where possible Ngiyampaa Wangaaypuwan language will be incorporated into interpretive material.
- All interpretation material which is intended for public use must be approved by the Board of Management.



## Actions

- 6.2.1 Provide signage at the historic site day use area which welcomes visitors and provides a sense of arrival.
- 6.2.2 Install two small plaques on the original stone barbeque constructed by former landholders on the historic site, one to commemorate the handback to Ngiyampaa Wangaaypuwan and the other to commemorate the former landholders.
- 6.2.3 Develop a range of products to provide Ngiyampaa Wangaaypuwan interpretation of the park and *ngurrampaa* more broadly. This will include a program of Ngiyampaa Wangaaypuwan guided walks for schools and other visitors.
- 6.2.4 Revise the interpretation plan (Godden Mackay Logan 2006) to take into account the whole park, and implement the plan.

**'I'd like to see progress and to share Mount Grenfell with everyone.'**

Harley Toomey, Cobar Shire Council representative on the Mount Grenfell Board of Management

## 6.3 Group and commercial activities

Group activities can provide opportunities for people who would otherwise not be able to experience the park, and can promote environmental and cultural understanding and support for conservation. Guided groups also provide an additional measure of protection to sensitive cultural landscapes and an opportunity for Ngiyampaa Wangaaypuwan to deliver interpretation of Ngiyampaa culture from a personal perspective. Over the time since the historic site was proclaimed, commercial tour groups have visited the historic site only very occasionally.

Although the Board of Management would like to see more commercial tour operators bringing visitors to the Mount Grenfell Historic Site, there is a concern that large groups of people coming to the historic site increases the risk of damage to a sensitive cultural and natural environment. To address this, a limit is placed on group sizes, and where possible, groups will be accompanied by a Ngiyampaa Wangaaypuwan person. The impacts of all visitors on the park are being monitored and additional controls may be placed on group visits if necessary.

The key challenges to developing increased tourism for the park are its remoteness, its distance from other visitor attractions and a lack of promotion. There is potential to increase visitation by promoting Mount Grenfell as part of a tourism route which links reserves in western New South Wales, such as Gundabooka, Toorale, Mutawintji and Mungo national parks.

### Desired outcome for commercial activities

- The park provides opportunities for commercial tourism to the benefit of Ngiyampaa Wangaaypuwan.

### Guidelines

- Applications for commercial activities in the park must acknowledge Ngiyampaa Wangaaypuwan as the traditional owners and provide opportunities for development and/or remuneration of Ngiyampaa Wangaaypuwan.



- The Board of Management has decided that all commercial activities in the park must be licensed under the NPW Act.
- All group activities in the park, whether commercial or non-commercial, will require prior written approval of the Board of Management. Groups must be accompanied by Ngiyampaa Wangaaypuwan wherever possible and will be limited to 18 people.
- Commercial and other groups must comply with the same guidelines and conditions as other visitors (see Section 6.1).

## Actions

- 6.3.1 Investigate the potential for promoting the Mount Grenfell Historic Site as part of a regional or inter-regional tour route.
- 6.3.2 Ensure all commercial tour operators undertake a Ngiyampaa cultural awareness training program.
- 6.3.3 Provide opportunities for both guided and independent group activities at the historic site.

## 6.4 Research

A considerable amount of research has been carried out in the park to date including work on Aboriginal cultural heritage, plants and animals, historic cultural heritage, geology and visitor use. This plan refers to much of this work and seeks to implement researchers' recommendations where appropriate.

Researchers have a responsibility to observe cultural protocols when undertaking work on Ngiyampaa Country. Cultural protocols are the guiding principles for working with traditional people. They provide a platform for genuine recognition of Aboriginal people and offer the chance to improve relationships, including honest and open communication. The basis of these beliefs is set in deep respect for *ngurrampaa*. They include but are not limited to:

- respect and dignity – in accordance with Ngiyampaa kinship rules; Ngiyampaa should not be expected to betray those rules
- care and control – ensuring that Ngiyampaa have real decision-making authority and are approached to exercise that authority when it comes to cultural matters
- recognition – including Ngiyampaa Wangaaypuwan both legally and socially
- credibility of interpretation – acknowledging that both cultural and scientific views have their place
- confidentiality – keeping and respecting secret or sacred knowledge
- attribution – distinguishing and respecting women's and men's knowledge, places, business and ceremony
- true consultation – engaging Ngiyampaa Wangaaypuwan in open and honest communication to find out what they think, not just to fulfil a requirement.

The purpose of research should not be for the sake of research itself but to add to knowledge of issues and how the park should be managed best. Ongoing monitoring of cultural and natural values throughout the park will also contribute to an adaptive management approach. There are still some specific outstanding research needs including: Ngiyampaa Wangaaypuwan cultural heritage on the proposed national park and Part 11 land, Ngiyampaa Wangaaypuwan traditional



burning practices, responses by regionally significant vegetation communities following their conservation in the park, and fire thresholds for individual plant species and vegetation communities of western New South Wales.

Aboriginal people across Australia are concerned their intellectual property is not always respected by non-Aboriginal researchers and others. For example, the images of rock art at the Mount Grenfell Historic Site have been used very broadly over the last half-century, even though some subjects are culturally sensitive. When told something by Aboriginal people, non-Aboriginal researchers often feel free to use that information. In Aboriginal culture this is not the case (Rose 1996 in Smart et al. 2000). The Board of Management and NPWS will work to ensure appropriate recognition of Ngiyampaa intellectual property in relation to the park.

### **Desired outcome for research**

- Ongoing research and monitoring adds to knowledge of the park and contributes to improved management.

### **Guidelines**

- The Board of Management has decided that researchers may only carry out research in the park in accordance with NPWS policies, including the Cultural Heritage Information Policy and the Guideline to Aboriginal Intellectual Property.
- All researchers carrying out research in the park will abide by cultural protocols as requested by the Board of Management and/or Ngiyampaa Wangaaypuwan community members.
- Markers and/or traps may be placed at specific locations in the park for the purpose of ongoing monitoring provided their visual impact is minimised and they are removed once the monitoring is completed.
- Following the completion of research, any survey traps must be securely closed or removed.
- Consent must be obtained from the Board of Management before undertaking any research in the park. The Board of Management may seek endorsement by members of the broader Ngiyampaa Wangaaypuwan community as necessary.
- Researchers must lodge all data, articles and reports resulting from approved research with the Board of Management.
- All results obtained from any research, study or monitoring associated with the park must be made available to the Board of Management and the Ngiyampaa Wangaaypuwan community.

### **Action**

- 6.4.1 Support research about the values of the park that is consistent with the above guidelines, including the collection of oral and archival history.



## **7 MANAGEMENT OPERATIONS AND OTHER USES**



**‘The spirituality of this land is so beautiful and it’s important we share this with children.’**

Daniella Chedzey, Aboriginal owner and Deputy on the Mount Grenfell Board of Management

## **7. Management operations and other uses**

### **7.1 Park infrastructure and facilities**

#### **Access and management trails**

The park road to the historic site day use area is the only publicly accessible road in the park. Due to the impact of traffic and weather, this road requires ongoing monitoring for erosion.

Access by visitors beyond the day use area is restricted by a locked gate. This measure was introduced due to erosion of the access road in 1996 which revealed Aboriginal sites. An archaeological investigation subsequently recommended that no excavation or other work should be carried out that would threaten the integrity of what was a significant Ngiyampaa Wangaaypuwan cultural feature (Gunn 1996). The sites were covered with four inches of white gravel, and then buried under standard road resurfacing material. If erosion occurs again at this site, exposure of the white gravel will alert staff to the problem before the sites are compromised.

The current network of management trails on the proposed national park and Part 11 land reflects its former use as a pastoral station and provides access to the boundaries, ground tanks and homestead precincts. Those existing trails which are no longer needed will be closed and rehabilitated. It is unlikely that new trails will be needed. Due to the fragility of much of the landscape, parts of the park will remain inaccessible to vehicles.

#### **Guidelines**

- All staff will be made aware of the potential for cultural heritage to occur throughout the park, including along management trails, and of the steps to be taken if cultural heritage is encountered during management operations.
- The management of roads and trails will seek to prevent and/or minimise erosion.
- No new roads or trails will be constructed in the park.

#### **Actions**

- 7.1.1 Maintain management trails to a four-wheel drive (dry weather) standard.
- 7.1.2 Conduct an audit of the trail network of the proposed national park and Part 11 land to determine those trails no longer required for management purposes and priority trails for maintenance or upgrade.
- 7.1.3 Inform staff of the indicators for protecting cultural values underneath the road formation into the historic site and of steps needed for appropriate remediation actions.





## Signage

With acquisition of the proposed national park and Part 11 land, new directional and regulatory signage is needed to inform visitors about the regulations that apply. The existing signage at the historic site also needs to be revised to reflect the new additions to the park and advise visitors about the relationship between the historic site and the proposed national park and Part 11 land.

### Guidelines

- Signage will incorporate the Ngiyampaa logo but in all other respects be consistent with the NPWS Signage Manual.
- All signage is to be approved by the Board of Management.

### Actions

- 7.1.4 Erect standard identification and regulatory signage at the entry to the proposed national park.
- 7.1.5 Replace outdated NPWS signage at the historic site.

## Artificial water points

The proposed national park and Part 11 land contains a network of ten artificial watering points, including eight in-ground tanks and two in-stream dams. These were developed by former landowners of Mumboana and Mount Grenfell stations to water their stock. The tanks range from 2000–10,000 cubic metres in size and have a total capacity of approximately 46,000 cubic metres. There is also a bore supplying the Mount Grenfell Homestead.

Now that this land is being managed for conservation, the need for a permanent water supply is greatly reduced. The main water needs are fire suppression and for use by Board of Management and NPWS personnel who visit the site from time to time.

However, controlled access to water is a valuable tool for pest control in the arid rangelands, particularly for feral goats. Although the majority of tanks were fitted with traps at the time of purchase, fencing is being upgraded at some tanks to provide a better configuration for trapping and holding goats. As part of the goat management program, the Board of Management and NPWS will reduce the number of in-ground tanks, having regard to their ongoing usefulness in pest control and fire management.

### Guidelines

- A domestic water supply remains available for staff and other visiting personnel at the homestead precincts.
- Artificial water points will be managed to maximum advantage for the reduction of feral goats. This may include earthworks to prevent tanks holding water.

### Actions

- 7.1.6 Assess the ground tanks considering their use for fire, weed and feral goat management.
- 7.1.7 Maintain goat traps and/or goat exclusion fencing in accordance with their identified use around tanks to be retained. Tanks that are not needed will be prevented from holding water (by means such as breaching tank walls, preventing inflow or infilling).



## Fencing

Boundary fencing of the park is essential for ongoing pest management and for managing total grazing pressure. At the time of acquisition the former Mount Grenfell Station was fenced into five main paddocks together with four holding paddocks around the homestead. This internal fencing may be of value for pest management operations. The boundary fencing was incomplete and some sections were not to a stock-proof standard.

The historic site is fenced on three sides with stock-proof fencing. The remaining boundary traverses culturally sensitive Country and steep terrain. Any boundary fencing will be guided by the NPWS Boundary fencing Policy (NPWS 2014). To overcome these issues, a fence may be constructed through a section of the proposed national park and will form part of an exclusion area for the protection of cultural values (see Action 3.6.3).

### Guideline

- Boundary and internal fencing will be maintained as an integral part of pest management in the park. Where possible, fencing will be to a standard that excludes goats.

### Actions

- 7.1.8 Develop boundary fencing agreements with neighbouring landholders as appropriate in accordance with the *NPWS Boundary Fencing Policy*.
- 7.1.9 Construct fencing in strategic locations to protect cultural values and assist in pest management.
- 7.1.10 Carry out regular surveillance of the boundary and maintain fencing as required.

## Buildings

Within the Mumboana Homestead complex the shearers' quarters are being upgraded for adaptive re-use as occasional accommodation for staff, researchers and Ngiyampaa community members. Water is supplied to the site using a combination of in-ground tanks and rainwater tanks. An amenities block has been added to service the quarters. Potential also exists for the main Mumboana Homestead building to be renovated for residential use by staff in the future.

A temporary workshop and storage facility has been erected using shipping containers which will be replaced in due course by permanent structures and security fencing.

The Mount Grenfell Homestead precinct has been enclosed in security fencing to prevent public access to buildings and other structures. These will continue to be monitored as a matter of safety for staff and the public prior to further consideration of management measures (see Action 4.2.2).

### Guideline

- Accommodation and other facilities will be provided within the Mumboana Homestead precinct for use by NPWS staff, Ngiyampaa Wangaaypuwan community members and other personnel.

### Actions

- 7.1.11 Maintain and upgrade buildings and infrastructure at the Mumboana Homestead complex, in accordance with the heritage action statement for the five historic buildings, for accommodation, meetings and office purposes.



7.1.12 Construct a workshop and storage facility for storage of plant and equipment within the Mumboana Homestead precinct, and remove the shipping containers.

## 7.2 Third party interests

### Trigonometric station

Choy Trigonometric Station is located within the historic site, on the highest point of Leopardwood Range, and is accessed by the Ngiyampaa Walkabout Track. An agreement between the former Central Mapping Authority (now Land and Property Information, part of the Office of Finance and Services) and NPWS allows for continued access for necessary survey activities.

### Powerlines

Essential Energy has two powerlines traversing the park, one running north-west to south-west through the proposed national park, and the other running east to the former Mumboana Homestead. Clearing and driving of vehicles along powerlines has the potential to impact cultural and natural values in the park. In view of the sensitive nature of much of the landscape, an agreement should be negotiated with the provider.

### Guideline

- Third party interests will be managed cooperatively to manage impacts on natural and cultural values.

### Action

7.2.1 Formalise an agreement with Essential Energy for the maintenance of existing powerlines in the park.



## **8 GETTING THINGS DONE (IMPLEMENTING THE PLAN)**



## 8. Getting things done (implementing the plan)

This plan of management establishes a scheme of operations for the park.

Identified activities for implementation are listed in Table 5. Relative priorities are allocated against each activity as follows:

- **High priority** activities are imperative to achieve 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 necessary to achieve the objectives and desired outcomes but are not urgent.
- **Low priority** activities are desirable to achieve the objectives and desired outcomes but can wait until resources become available.
- **Ongoing** activities are undertaken on an annual basis or in response to an issue that arises.

**Table 5: List of actions**

Number	Actions	Priority
<b>2</b>	<b>Management purposes and principles</b>	
<b>2.4</b>	<b>Principles for managing the park</b>	
2.4.1	Develop a formal agreement for joint management of the proposed Mount Grenfell National Park and Part 11 land between NPWS and the Ngiyampaa Wangaaypuwan community.	High
<b>3</b>	<b>Ngiyampaa Wangaaypuwan cultural values</b>	
<b>3.2</b>	<b>Ngiyampaa Wangaaypuwan <i>ngurrampaa</i></b>	
3.2.1	Facilitate cultural learning opportunities for Ngiyampaa Wangaaypuwan in the park. Cultural learning opportunities may include culture camps, cultural surveys, collecting natural resources for cultural use, recording of oral history, conducting ceremonies and the like.	Ongoing
3.2.2	Investigate options for developing a cultural centre and Keeping Place in the vicinity of the Mount Grenfell Homestead.	High
3.2.3	Investigate dual naming of the park and features within the park.	Medium
<b>3.3</b>	<b>Water</b>	
3.3.1	Seek advice and compile knowledge on culturally appropriate methods of looking after sources of fresh water in the park including gnarma holes, soaks and waterholes.	Low
<b>3.4</b>	<b>Plants and animals</b>	
3.4.1	Support any research undertaken concerning the cultural uses of plants and animals which can be applied to management and interpretation in the park.	Ongoing
3.4.2	Support any research undertaken concerning the fire requirements of local native species and the traditional burning practices by Ngiyampaa Wangaaypuwan.	Ongoing



Number	Actions	Priority
<b>3.5</b>	<b>Rock art</b>	
3.5.1	Carry out an annual inspection of all rock art sites in the park and maintain them as needed to address threats including growth of vegetation, integrity of goat-proof barriers and potential water damage.	High
3.5.2	Prepare a rock art maintenance plan which allows for regular monitoring and maintenance of all art sites in the park. Carry out monitoring and maintenance of all rock art in accordance with this plan.	Ongoing
3.5.3	Continue to build capacity among the Ngiyampaa Wangaaypuwan community and NPWS staff for rock art monitoring and maintenance through on-site training.	Ongoing
3.5.4	Prepare condition reports for the rock art sites at least every three years, to be considered by the Board of Management.	Ongoing
3.5.5	Review protective measures for the art sites, and ensure that impacts from goats and other disturbances are carefully considered before any measures other than the existing mesh barriers are implemented. The <i>Mount Grenfell Art Site and Visitor Use Precinct Management Options Report</i> (Gondwana Consulting 2006) should form the basis of this review.	High
<b>3.6</b>	<b>Other Ngiyampaa cultural heritage</b>	
3.6.1	Continue to undertake cultural heritage surveys in the park. All places, objects, and sites found in the park will be recorded in the Aboriginal Heritage Information Management System (AHIMS).	Ongoing
3.6.2	Identify threats to cultural heritage values (in addition to rock art) throughout the park and carry out protective management measures in accordance with the guidelines.	High
3.6.3	Prepare a culture and heritage management strategy for the park which includes advice on all cultural heritage values, the threats to those values, and appropriate management measures required.	High
3.6.4	Identify cultural heritage protection zones to preserve important cultural values. All management activities proposed in these areas must be assessed for their potential to have an adverse impact on the values.	High
3.6.5	Investigate cultural heritage under the site of the old carpark on the historic site and provide appropriate protection if necessary.	Low
<b>4</b>	<b>Historic heritage</b>	
<b>4.2</b>	<b>Historic buildings and structures</b>	
4.2.1	Implement the recommendations of the heritage action statement for the five historic buildings and retain all other heritage structures until their heritage value has been properly assessed.	Medium
4.2.2	Undertake risk assessments of the Mount Grenfell and Mumboana homestead precincts.	Medium



Number	Actions	Priority
<b>5</b>	<b>Looking after <i>ngurrampaa</i></b>	
<b>5.1</b>	<b>Geology and landscape</b>	
5.1.1	Prepare a sediment and erosion management plan to address priority sites for remediation where significant cultural values are under threat.	High
5.1.2	Rehabilitate sites where infrastructure which is no longer required has been removed.	Low
5.1.3	Restrict all vehicle movements to existing tracks and trails, except where off-track use is required for emergency management purposes or is approved by the Board of Management.	Ongoing
<b>5.2</b>	<b>Native plants</b>	
5.2.1	Monitor the condition of regionally significant vegetation communities and plant species and implement specific protection measures as necessary (see Table 1).	Ongoing
5.2.2	Promote restoration of groundcover and understorey vegetation in disturbed areas through continued management of total grazing pressure and monitoring of other threats.	Ongoing
<b>5.3</b>	<b>Native animals</b>	
5.3.1	Implement relevant recovery actions in the <i>Priorities Action Statement</i> for threatened animal species and populations occurring in the park.	Ongoing
5.3.2	Protect the habitats of native animals in the park by addressing habitat degradation processes including the effect of introduced species.	Ongoing
5.3.3	Continue to record native animals in the park. All records will be added to the Atlas of NSW Wildlife.	Ongoing
5.3.4	Work with Ngiyampaa Wangaaypuwan People to record cultural knowledge of native animals.	Ongoing
<b>5.4</b>	<b>Pest animals</b>	
5.4.1	Manage pest species in accordance with the regional pest management strategy and other strategies as relevant.	High
5.4.2	Develop and implement a plan for feral goat control in the park.	High
5.4.3	Control feral species in cooperation with Western Local Land Services and neighbouring landholders.	Ongoing
5.4.4	Continue to collect information about pest species distribution and populations in the park.	Ongoing
<b>5.5</b>	<b>Pest plants</b>	
5.5.1	Map prickly weed infestations and implement a control program for their eradication.	High
5.5.2	Undertake weed management in cooperation with Western Local Land Services and neighbouring landholders.	Ongoing
<b>5.6</b>	<b>Fire</b>	
5.6.1	Implement the fire management strategy for the park.	Ongoing



Number	Actions	Priority
5.6.2	Support research to determine fire ecology at species and community levels.	Ongoing
<b>5.7</b>	<b>Climate change</b>	
5.7.1	Continue existing fire, pest and weed management programs to increase the ability of the park to cope with climate change, and encourage research into appropriate indicators to monitor the effects of climate change.	Ongoing
<b>6</b>	<b>Sharing <i>ngurrampaa</i></b>	
<b>6.1</b>	<b>Visitor facilities</b>	
6.1.1	Investigate suitable sites and, if a site can be found, develop a small camping area adjoining Pulpulla Road in the proposed national park which will provide up to six campsites, picnic tables, a toilet and possibly an interpretive walk (see Map 1).	Medium
6.1.2	Upgrade the loop trails and remainder of the track through the rock art galleries.	Medium
6.1.3	Monitor visitor numbers to the park by means of a visitors' book and/or other measures. Information should be collected separately for the historic site and the proposed national park.	Ongoing
6.1.4	Remove the original toilet, picnic table and shelter constructed by former landholders at the track head to the art sites on the historic site and rehabilitate the area. The stone barbecue will be retained (see Section 6.2) but will not be available for use as a barbecue.	Low
<b>6.2</b>	<b>Interpreting Ngiyampaa values for visitors</b>	
6.2.1	Provide signage at the historic site day use area which welcomes visitors and provides a sense of arrival.	High
6.2.2.	Install two small plaques on the original stone barbecue constructed by former landholders on the historic site, one to commemorate the handback to Ngiyampaa Wangaaypuwan and the other to commemorate the former landholders.	Ongoing
6.2.3	Develop a range of products to provide Ngiyampaa Wangaaypuwan interpretation of the park and <i>ngurrampaa</i> more broadly. This will include a program of Ngiyampaa Wangaaypuwan guided walks for schools and other visitors.	Medium
6.2.4	Revise the interpretation plan (Godden Mackay Logan 2006) to take into account the whole park, and implement the plan.	High
<b>6.3</b>	<b>Group and commercial activities</b>	
6.3.1	Investigate the potential for promoting the Mount Grenfell Historic Site as part of a regional or inter-regional tour route.	Low
6.3.2	Ensure all commercial tour operators undertake a Ngiyampaa cultural awareness training program.	High
6.3.3	Provide opportunities for both guided and independent group activities at the historic site	Ongoing





Number	Actions	Priority
<b>6.4</b>	<b>Research</b>	
6.4.1	Support research about the values of the park that is consistent with the above guidelines, including the collection of oral and archival history.	Ongoing
<b>7</b>	<b>Management operations and other uses</b>	
<b>7.1</b>	<b>Park infrastructure and facilities</b>	
7.1.1	Maintain management trails to a four-wheel drive (dry weather) standard.	Ongoing
7.1.2	Conduct an audit of the trail network of the proposed national park and Part 11 land to determine those trails no longer required for management purposes and priority trails for maintenance or upgrade.	High
7.1.3	Inform staff of the indicators for protecting cultural values underneath the road formation into the historic site and of steps needed for appropriate remediation actions.	Ongoing
7.1.4	Erect standard identification and regulatory signage at the entry to the proposed national park.	High
7.1.5	Replace outdated NPWS signage at the historic site.	High
7.1.6	Assess the ground tanks considering their use for fire, weed and feral goat management.	High
7.1.7	Maintain goat traps and/or goat exclusion fencing in accordance with their identified use around tanks to be retained. Tanks that are not needed will be prevented from holding water (by means such as breaching tank walls, preventing inflow or infilling).	Ongoing
7.1.8	Develop boundary fencing agreements with neighbouring landholders as appropriate in accordance with the <i>NPWS Boundary Fencing Policy</i> .	Medium
7.1.9	Construct fencing in strategic locations to protect cultural values and assist in pest management.	High
7.1.10	Carry out regular surveillance of the boundary and maintain fencing as required.	Ongoing
7.1.11	Maintain and upgrade buildings and infrastructure at the Mumboana Homestead complex, in accordance with the heritage action statement for the five historic buildings, for accommodation, meetings and office purposes.	High
7.1.12	Construct a workshop and storage facility for storage of plant and equipment within the Mumboana Homestead precinct, and remove the shipping containers.	Low
<b>7.2</b>	<b>Third party interests</b>	
7.2.1	Formalise an agreement with Essential Energy for the maintenance of existing powerlines in the park.	Low



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