

Narkoola National Park and Narkoola National Park (Recovery) Management Statement 2013

Park size:	National Park	11,799ha
	National Park (Recovery)	2,249ha
Bioregion:	Mulga Lands	
QPWS region:	South West	
Local government estate/area:	Balonne Shire	
State electorate:	Warrego	

Legislative framework

✓	<i>Aboriginal Cultural Heritage Act 2003</i>
✓	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i>
✓	<i>Native Title Act 1993 (Cwlth)</i>
✓	<i>Nature Conservation Act 1992</i>

Thematic strategies

✓	Fire Management Strategy
✓	Pest Management Strategy

Vision

Narkoola National Park will continue to conserve the quality and integrity of the park's natural values, including species of conservation significance and the diverse plant communities of the Mulga Lands Bioregion.

Conservation purpose

Narkoola National Park was gazetted on 26 March 2010 for the purposes of nature conservation. The park provides further representation of the Mulga Lands regional ecosystems, particularly gidgee, which are poorly represented in park estates.

Protecting and presenting the park's values

Landscape

Narkoola National Park occurs in the Warrego–Paroo catchment on the floodplain of Patterson Creek, but does not protect the headwaters of the creek catchment.

The western end of the northern block is relatively undisturbed, with approximately 80 per cent of the surrounding grazing land being cleared. The park conserves an intact remnant in a heavily cleared landscape. It could potentially be used as a benchmark for the rehabilitation of buffel grass colonised areas.

In addition to grazing surrounding the park, leasehold blocks are located to the east and south, and there is a freehold property to the west of the national park. These blocks are approximately 80 per cent cleared but land use practices have minimal impact on the park. No known intrusions by cattle or sheep from these areas into the park have occurred.

A road reserve borders the park and it is fenced, but the fence is in a state of disrepair. There is potential for droving stock to enter the park. The adjoining road reserve forms a valuable wildlife corridor.

An easement with an oil pipeline bisects the southern block of the park. The easement has potential to erode and act as an introduction point for pest plants to spread. While no oil spills have occurred, any spill would have serious consequences and ecological impacts on the park. The standard of the pipeline and easement maintenance is currently high.

The park also contains a large (approximately 6ha) gravel pit, six dams, and a 10km bore drain that runs from the western side out through the southern boundary.

Regional ecosystems

Ten regional ecosystems are represented on the park. Five are of concern, one is endangered and three are not of concern under their biodiversity status (Table 1).

The park is comprised of mulga and poplar box *Eucalyptus populnea* open woodlands, predominantly with a wilga *Geijera* spp. and false sandalwood *Eremophila mitchellii* understorey; interspersed with gidgee *Acacia cambagei* and coolibah *Eucalyptus coolabah* communities. Carbeen, beefwood *Grevillea striata* and white cypress pine *Callitris glaucophylla* communities occur on sandy rises.

Acacia open woodlands on residual ridges have a limited ground layer, but this is typical of this community type.

Cleared/pulled areas now contain thick regrowth of mainly false sandalwood. Thick buffel grass *Cenchrus ciliaris* in the ground layer increases fire risk. Regeneration of mid and canopy layer species needs to be encouraged, and buffel establishment in the ground layer discouraged.

Native plants and animals

No vulnerable, endangered or near threatened species have been recorded on the national park at this stage; however no intensive surveys have been undertaken.

Several species recorded on the park are reaching their limits of distribution including the western limit of *Eucalyptus exserta* and near the western distributional limit of belah *Casuarina cristata*. *Acacia petraea* is at or near eastern limit while it is the most easterly known population of *Ctenotus hebetior* in south-central Queensland. *Eucalyptus exserta*, *E. ammophila* and *Acacia petraea* are all restricted on the park to a residual ridge on the north-western boundary. Due to very low fuel loads, there is very little fire risk.

One small patch of belah occurs in the north-eastern block. It is a potential food resource for the glossy black-cockatoo.

Aboriginal culture

The values or significance of Narkoola National Park to Aboriginal people is unknown. No contact has been made with Aboriginal groups at this stage. Some cultural sites are known to occur on the park. These sites are small, but appear well preserved.

Shared-history culture

Pastoral infrastructure on the park includes; sheep yards, cattle yards, water reticulation system, and shearers quarters. Stockyards are in a state of disrepair, and the water reticulation system is non-functional. There is no immediate fire risk to these items. The shearer's quarters are in a fair condition, and are currently used by visiting staff. The envisaged future use for this building is a ranger workshop/meeting venue. A large amount of vandalism occurred during the transition period, mainly to the house.

Other key issues and responses

Pest management

Major pest plant species include buffel grass *Cenchrus ciliaris*, noogoora burr *Xanthium occidentale* and saffron thistle *Carthamus lanatus*. Buffel grass occurs over 25 per cent of the reserve, but mainly on the southern portion. It is mostly confined to the mosaic of cleared areas and some sand ridges on low mulga rises. Occurring in dense patches, it creates high competition for native grass species, is uneconomical to treat and increases fire risk. Alternate control measures on Narkoola National Park (Recovery) for this pest may include grazing, and its feasibility should be assessed and approved implementation through the pest management strategy.

Noogoora burr and saffron thistle occur in scattered populations throughout the park, but are mainly confined to roadsides and watercourses. They pose no significant impact, and chemical treatment manages infestations at a low level.

The major pest animal species found on the park include goats *Capra hircus*, pigs *Sus scrofa*, cats *Felis catus*, rabbits *Oryctolagus cuniculus* and sheep *Ovis aries*. Occasional sightings of goats, pigs, rabbits and cats are made throughout the park. These animals have not caused a visible impact.

Extensive baiting for pigs and foxes has been carried out. Shooting of feral goats and pigs is occasionally conducted. Staff have noted reduced sightings of pest animals, and positive neighbour reactions following pest control actions.

Fire management

A Level 2 fire management strategy has been prepared for Narkoola National Park.

Some communities (e.g. acacia and eucalypt dominated communities) are not currently able to be burnt due to low fuel loads. These communities require fire, so when fuel loads increase and conditions are favourable, prescribed burning should be implemented.

Buffel communities have not been burnt, and fuel loads and the risk of wildfire are high. A mosaic of remnant vegetation is regenerating over the cleared area mosaic, but is infested with buffel grass. Uncontrolled fire within the regenerating vegetation areas has the potential to limit recovery of the native overstorey species.

Other management issues

Siltation and erosion

Erosion occurring along fence lines in undulating country is not likely to increase. It is localised, and appears to be caused from washed out stock pads. Some regeneration and build-up of leaf litter should help reduce the rate of erosion.

A disused bore drain acts as an unnatural drain during wet weather, and a concentration of livestock along the drain has denuded the immediate areas of vegetation, resulting in topsoil erosion. Erosion will be reduced by the regeneration of vegetation in the immediate area.

Grazing

There have been minimal stock incursions into the park from sheep and cattle. These domestic animals have the potential to enter from the road reserve to the north if existing boundary fence is not replaced.

Internal fragmentation

Previous grazing by sheep has resulted in reductions in native grass and seed banks, and wildlife habitat. De-stocking of the park will result in a build-up of native grasses which should result in the restoration of wildlife habitat. However, it could also result in the build-up of exotic pasture species.

Cooperative activities and neighbour extension

Staff participate in coordinated baiting programs. Through one-on-one contact, they have also helped develop and/or improve neighbour participation in management activities.

Management directions

Desired outcomes	Actions and guidelines
<p>Species of conservation significance</p> <p>The condition and diversity of plant communities representative of the Mulga Lands is maintained.</p> <p>Knowledge of the plant communities and species is increased to assist their conservation.</p>	<p>A1. Implement a survey program to create a plant and animal inventory and identify species of management significance.</p> <p>A2. Encourage and support research from tertiary institutions and other organisations into and monitoring of the distribution, abundance and habitat condition of species of conservation significance and use findings to adapt park management where appropriate. Potential areas for research include the ecological requirements and vulnerabilities of <i>Eucalyptus exserta</i>, <i>Casuarina cristata</i>, <i>Acacia petraea</i>, <i>Ctenotus hebetior</i>, <i>Eucalyptus exserta</i>, <i>E. ammophila</i> and <i>Acacia petraea</i>.</p>
<p>Cultural heritage</p> <p>Aboriginal cultural values of the park are identified and protected.</p> <p>Relics of the area's pastoral history are protected or, where appropriate, allowed to deteriorate naturally.</p>	<p>A3. Survey, record and assess the park for heritage places.</p> <p>A4. Develop and implement conservation and presentation plans for these sites where appropriate. Otherwise the non-promotion of sites will also aid in their protection.</p> <p>A5. Record, when opportunity arises, stories from people that have had an association with the park.</p> <p>A6. Manage heritage places to conserve these areas with Traditional Owner involvement.</p>
<p>Landscape</p> <p>The integrity and scenic qualities of the park's landscape are maintained.</p>	<p>A7. Undertake drainage works that will reduce the effects of water erosion along firebreaks and bore drains on erodible soils.</p>
<p>Pest management</p> <p>Pest management reduces the impacts of pest plants and animals on the natural values of the park.</p>	<p>A8. Develop, review and implement a pest management strategy.</p> <p>A9. Seek capital funding for the construction of northern boundary fence to minimise stock incursions.</p> <p>A10. Decommission all artificial waters to reduce pest animal and pest plant activity.</p>
<p>Fire management</p> <p>The ecological condition and diversity of natural plant communities is maintained through applied use of fire where necessary.</p> <p>Populations of fire sensitive plant species are protected.</p>	<p>A11. Manage fire using the fire management strategy.</p>
<p>Tourism and visitor opportunities</p> <p>Recreation opportunities are provided.</p> <p>Information is provided to the visitor to improve knowledge of the park's natural and cultural resources.</p>	<p>A12. Provide opportunities for visitors to have nature-based recreation and to experience the parks natural values.</p> <p>A13. Provide generally information about the park off site.</p> <p>A14. Maintain access tracks to a four-wheel drive standard only.</p>
<p>Partnerships</p> <p>Cooperative relations with neighbours and interested parties is maintained.</p>	<p>A15. Consult with neighbours and other stakeholders on key issues including fire, pest and visitor management.</p>

Tables – Conservation values management

Table 1: Endangered and of concern regional ecosystems

Protected area	Regional ecosystem number	Description	Biodiversity status
National park and National park (recovery)	6.3.17	<i>Callitris glaucophylla</i> , <i>Corymbia tessellaris</i> , <i>Acacia excelsa</i> +/- <i>C. clarksoniana</i> open-woodland on old alluvial dunes and sandplains	Of concern
National park	6.3.18	<i>Eucalyptus populnea</i> +/- <i>Eremophila mitchellii</i> +/- <i>Acacia aneura</i> +/- <i>Eucalyptus melanophloia</i> woodland on flat alluvial plains	Of concern
National park (recovery)	6.3.24	<i>Eucalyptus coolabah</i> or <i>E. populnea</i> woodland on alluvial plains	Of concern
National park and National park (recovery)	6.4.3	<i>Eucalyptus populnea</i> , <i>Casuarina cristata</i> or <i>Acacia harpophylla</i> +/- <i>Geijera parviflora</i> woodland on clay plains	Endangered
National park	6.5.1	<i>Acacia aneura</i> , <i>Eucalyptus populnea</i> , <i>E. melanophloia</i> open-forest on undulating lowlands	Of concern
National park and National park (recovery)	6.5.3	<i>Eucalyptus populnea</i> , <i>Acacia aneura</i> +/- <i>Eremophila mitchellii</i> woodland within <i>A. aneura</i> communities	Of concern
National park and National park (recovery)	6.5.17	<i>Eucalyptus populnea</i> +/- <i>E. melanophloia</i> +/- <i>Callitris glaucophylla</i> +/- <i>Acacia aneura</i> woodland on sandplains	Of concern