Peak Range National Park Management Statement 2013

Park size:	2,500ha
Bioregion:	Brigalow Belt
QPWS region:	Central
Local government estate/area:	Isaac Regional/Central Highlands Regional Councils
State electorate:	Gregory/Dalrymple

The Anvil, Lords Table Mountain, Peak Range National Park.
Photo: NPRSR

Legislative framework

a	*Aboriginal Cultural Heritage Act 2003*
a	*Environment Protection and Biodiversity Conservation Act 1999* (Cwlth)
a	*Native Title Act 1993* (Cwlth)
a	*Nature Conservation Act 1992*

Plans and agreements

a	Bonn Convention
a	China—Australia Migratory Bird Agreement
a	Japan—Australia Migratory Bird Agreement
a	Republic of Korea—Australia Migratory Bird Agreement

Thematic strategies

a	Level 2 fire management strategy
a	Level 2 pest management strategy

Vision

Peak Range National Park will conserve ecosystems and species of significance to the region and nation.

The national park is managed with a considerable understanding of the diversity and ecology of natural environments. This ensures species, communities and features are protected and impacts minimised, and that visitor experiences and recreation opportunities are in keeping with the remote natural character of the park.

Partnerships with the Traditional Owners, local community, neighbours, research institutes and conservation groups are established and contribute to the area's ongoing management.

Conservation purpose

The objectives of management for Peak Range National Park are to:

- protect regional ecosystems and protect and extend the distribution of species of conservation significance
- conserve the management areas natural, cultural and aesthetic values

- minimise the impact of non-native plant and animal species on natural, cultural and aesthetic values
- incorporate the interests and rights of Traditional Owners and their affiliations to the area by co-operatively protecting and managing cultural heritage values
- provide access for self-reliant, nature-based recreation
- provide direction and action to protect the natural, cultural and social values of the management area—informed by appropriate research and monitoring
- foster cooperative relationships with neighbouring land holders to build stronger partnerships.

Protecting and presenting the park's values

Landscape

Peak Range National Park consists of four sections; Wolfang Peak, Eastern Peak, Lord's Table Mountain and Gemini Mountains. Peak Range is located east of Clermont and forms some of the most spectacular scenery on the Central Highlands. The range has been built up by basalt lava flows, which erupted from the Peak Range Volcano, a 'hot spot' volcano between 32 and 29 million years ago. The peaks are intrusive volcanic plugs of resistant rhyolite and trachyte (Willmott 2006).

The spectacular volcanic peaks (Mount Castor and Mount Pollux) are part of the Gemini Mountains section—787 hectares (ha)—and are located 44 kilometres (km) north-east of Clermont along the Peak Downs Highway. Mount Castor and Mount Pollux are rounded plugs of rhyolite. Mount Castor has long cooling columns and small caverns from erosion of chemically softened rock (Willmott 2006).

Wolfang Peak section is 172ha and has significant scenic and geological values. It is an isolated fang of rock with bands of grey and purple rhyolite showing the path of flow of basalt lavas. The slope below its bare volcanic peak carries an open scrub giving way to open grassland and grassy *Eucalyptus orgadophila* woodland (Butler and Fensham 2008).

Lord's Table Mountain section is located 35km east of Clermont along the Clermont-Dysart Road and is the central section of park. The mountain itself is a 320 metres (m) high flat-topped plateau, with Anvil Peak being the highest point, at the southern end. This section compromises 761ha and supports the largest area of dry rainforest in the Peak Range (Butler and Fensham 2008).

Eastern Peak section is 784ha and is located 50km east of Clermont and 85km north-east of Emerald. It is not accessible to the public. It is an example of a thrust dome resulting from successive intrusions and upheavals of viscous lava (Willmott 2006).

Regional ecosystems

Peak Range National Park has eight different regional ecosystems, six with low representation in protected area estate. One of these has a biodiversity status of endangered and five are of concern (Table 1). Regional ecosystem 11.8.12, listed as of concern, is endemic to the plateau of Lord's Table Mountain, occurring nowhere else.

Native plants and animals

Peak Range National Park is known to contain four plant species of conservation significance (Table 2). *Acacia arbiana* and *Bertya pedicellata* are listed as near threatened and *Trioncinia patens* is listed as endangered under the *Nature Conservation Act 1992*. *Dichanthium queenslandicum* is listed as vulnerable under the Nature Conservation Act and endangered under the *Environmental Protection and Biodiversity Conservation Act 1999*.

Two animal species of conservation significance have been recorded in the area. The squatter pigeon *Geophaps scripta scripta* is listed as vulnerable under the Nature Conservation Act and the Environmental Protection and Biodiversity Conservation Act, as well as being a medium priority in the Back on Track species prioritisation framework. The koala *Phascolarctos cinereus* is listed as vulnerable under the Environmental Protection and Biodiversity Conservation Act. The locally significant whip-tailed wallaby *Macropus parryi* has been sighted on the park. There are likely to be many more conservation significant animal species that occur, or whose habitat is likely to occur in the area.

Aboriginal culture

No native title claims have been accepted for this area by the National Native Title Tribunal. There is an active application by the Wangan and Jagalingou people over the Central Highlands and Isaac Regional Council Areas (QUD85/04).

There are no known sites of cultural significance in the park. However, given the geological features of the management area, it is likely to have been used as a navigation tool. It is important for Queensland Parks and Wildlife Service (QPWS) to work with Traditional Owners to identify cultural connections. This will ensure that management tools include appropriate measures to protect significant sites and areas. Opportunities to build cultural partnerships exist. QPWS will work towards building relationships to ensure that cultural heritage is protected and Traditional Owners are actively involved in day-to-day management.

Shared-history culture

The Peak Range has significant European cultural heritage value. Ludwig Leichhardt was the first European to sight the range on the 18 January 1845. Many of the peaks were named after participants and supporters of the Leichhardt expedition. A monument detailing the journey can be found on the Dysart-Clermont Road and survey markers exist on Wolfang Peak and Gemini Mountains.

Sheep husbandry was previously one of the main past land-uses in the area. This has subsequently been replaced by cattle and dry land cropping. Grazing authorities still occur on Eastern and Wolfang Peaks.

Tourism and visitor opportunities

Visitors to Peak Range National Park enjoy bushwalking and photography, with spectacular geological features and views. There is also historical interest due to the Leichhardt journey through the area.

There is no vehicle access within the park. Visitors can walk into Lord's Table Mountain and Wolfang Peak sections from the public road. Wolfang Peak is currently covered by a grazing authority. Visitors can access the park to climb the peak via fire control lines but they must contact the authority holder prior to entering. Gemini Mountains is accessed by walkers via fire control lines. A small number of visitors park vehicles on road verges. If this activity increases in the future, consideration should be given to providing safe parking options for park users. Eastern Peak section is surrounded by private land and there is no public access.

Peak Range National Park provides a remote natural setting with no motorised vehicle access, facilities or defined walking tracks. Visitors must be totally self-reliant and have a reliable call in schedule. The treacherous peaks may be hazardous and cliff-based activities are not recommended. Due to the location of the park, it is unlikely the parks remote setting will change in the future.

Education and science

The management area provides abundant opportunities for scientific research and monitoring. Research activities conducted on Peak Range National Park require a permit. Results from research and monitoring can benefit the area's management.

Potential research opportunities include; further research into the ecology and distribution of *Dichanthium queenslandicum*, *Trioncinia patens* and *Bertya pedicellata*, population and distribution of koalas *Phascolarctos cinereus* and population and distribution of a number of reptile species which may potentially occur in the area.

Queensland Museum has undertaken reptile surveys in the area. The Queensland Entomological Society currently has a permit to collect insect species in the area.

Other key issues and responses

Partnerships

QPWS is directly responsible for planning, managing and regulating activities in the management area. Working with Traditional Owners, neighbours and organisations in managing the area is highly desirable to achieve the vision. Efficiencies in resource sharing, improved communications, decision making and enhanced on-ground outcomes is to be facilitated, where possible, through working partnerships.

A working relationship with the Traditional Owners is essential so their views and aspirations for the land can be included in planning and management. Traditional Owners have a role to protect cultural heritage in the management area and a role to educate QPWS and visitors on cultural heritage management.

QPWS will maintain working relationships with Queensland Rural Fire Service, local government, neighbours and lessees to assist in the management of fire, pests and grazing.

Pest management

A Level 2 pest management strategy exists for the park.

Lord's Table Mountain section has mother-of-millions *Bryophyllum delagoense,* a class 2 pest plant under the *Land Protection (Pest and Stock Route Management) Act 2002* and *Parthenium hysterophorus*, which is listed on the Weeds of National significance register. Parthenium occurs on disturbed soils and is being controlled along fire control lines. In the future biocontrol may be an option to manage Parthenium and mother-of-millions. Harrisia cactus *Harrisia martini* is present. The mealy bug (biocontrol) is used to help prevent harrisia cactus from increasing above current levels. Prickly pear *Opuntia* spp. occurs sparsely throughout the park and is controlled by larvae of the cactoblastis moth.

Sorghum spp. occur on the western boundaries of the Gemini Mountains section. This species has spread onto the park from neighbouring properties. Buffel grass *Cenchrus ciliaris* is a perennial tussock grass and was introduced into the Brigalow Belt bioregion during the second half of the 20th century when brigalow and/or gidgee communities were cleared. Buffel occurs throughout the park, but to a lesser extent on Eastern Peak and Lord's Table Mountain sections. Buffel grass is the greatest potential threat to native vegetation within the park—particularly to fire-sensitive dry rainforest species—as it increases susceptibility to incursion by fire (Butler and Fensham 2008).

Feral pigs *Sus scrofa* occur in the park on a seasonal basis depending on surrounding cropping activity and water availability. Pigs potentially spread pest plants and impact on natural waters by disturbing banks and muddying water. They cause vegetation loss by their wallowing, which in turn impacts on the habitat and survival of frog and arthropod species. They also feed on native frog populations. Control is through incidental shooting.

Foxes *Vulpes vulpes*, cats *Felis catus*, cane toads *Rhinella marina* and wild dogs *Canis lupus familiaris* are a threat to native animals in the park. There are no controls currently in place for these species. Rabbits *Oryctolagus cuniculus* occur in the park. Populations are monitored incidentally. Control methods will be implemented if rabbit populations increase and cause significant impact.

Although the exclusion of cattle *Bos* spp. from the park is difficult, QPWS and adjoining landholders work together to ensure stock remain on private land or in the leased area. If cattle are on park, they are mustered off through an authorised mustering permit under the Nature Conservation Act. Cattle grazing may pose a potential threat to *Trioncinia patens*, one of the most threatened plant species in the Peak Range. Two of the populations of this species are currently exposed to low levels of grazing. Any further grazing of these areas should be avoided (Butler and Fensham 2008).

Fire management

QPWS is the primary agency for fire management on protected areas and State forests. The agency has a Fire management system that provides the framework for fire management planning, implementation, monitoring and reporting. Fire strategies provide the overall framework and direction for fire management and are the foundation from which planned burn programs are developed. The park has a Level 2 fire management strategy.

Fire is natural to the eucalypt and grass communities found within the park. The topography of the peaks and the management practices of adjoining landholders is something to consider in fire management. Fire is a threat to the patches of semi ever green vine thicket and brigalow on the slopes of Gemini and Eastern Peak sections. Planned burns have occurred on Lord's Table Mountain and Gemini Mountains sections. A wildfire emanating from the highway burnt the entire park and a neighbouring property in 1991.

The main threat is inappropriate fire regimes and wildfires. A coordinated approach with neighbouring properties will help to ensure fire is managed appropriately.

Authorities

One grazing authority exists on the national park for the Wolfang section. This authority was originally granted under the *National Park & Wildlife Act 1975*, under which grazing could be permitted.

References

Butler DW and Fensham RJ 2008, Lose the plot: cost-effective survey of the Peak Range, Central Queensland. *Cunninghamia* 10, 521-538.

Fensham RJ and Holman JE 1998, The vegetation of a mesa plateau in central Queensland. *Cunninghamia* 5, 619-631.

Willmott W 2006, *Rocks and landscapes of the national parks of central Queensland*. Geological Society of Australia, Queensland Division.

Management directions

Desired outcomes	Actions and guidelines
Natural values The full range of naturally occurring biological diversity, ecological processes and landscape dynamics are maintained.	A1. Monitor natural processes and assess the impacts from pests, fire and recreation. Use the information to guide management decisions and amend current and future plans and strategies. A2. Minimise threats through appropriate fire regimes, grazing management and pest plant and animal control. A3. Maintain relationships with neighbouring properties to ensure collaborative management of fire and pests. A4. Implement and review the fire management strategy and pest management strategy when required. A5. Support research programs, particularly those that will benefit conservation management. A6. Investigate opportunities for extending the park to incorporate southern peaks should they arise.
Tourism and visitor opportunities Visitor use is low-impact, nature-based and self-reliant, in the absence of permanent facilities.	A7. Provide visitor access and activities that are a remote, self-reliant experience in keeping with Peak Range National Park's natural setting.
Partnerships The effectiveness of future management is strengthened through cooperative partnerships.	A8. Build and maintain relationships with the local community, Traditional owners and interest groups to improve knowledge of the park and gain support for park management initiatives.

Tables – Conservation values management

Table 1: Endangered and of concern regional ecosystems

Regional ecosystem	Description	Biodiversity status
11.3.3	*Eucalyptus coolabah* woodlands on alluvial plains.	Of concern
11.3.25	*Eucalyptus tereticornis* or *E.camaldulensis* woodland fringing drainage lines.	Of concern
11.4.9	*Acacia harpophylla* shrubby open forest to woodland with *Terminalia oblongata* on Cainozoic clay plains.	Endangered
11.8.3	Semi-evergreen vine thicket which may have emergent *Acacia harpophylla*, *Casuarina cristata* and *Eucalyptus* spp. Occurs on Cainozoic igneous rocks. Generally restricted to steeper, rocky hillsides.	Of concern
11.8.11	*Dichanthium sericeum* grassland on Cainozoic igneous rocks.	Of concern
11.8.12	*Eucalyptus microcarpa* and *E. exserta* low forest. Occurs on Cainozoic igneous rocks (trachyte).	Of concern

Table 2: Species of conservation significance

Scientific name	Common name	*Nature Conservation Act 1992* status	*Environment Protection and Biodiversity Conservation Act 1999* status	Back on Track status
Plants				
Acacia arbiana	-	Near threatened	-	Low
Bertya pedicellata	-	Near threatened	-	Low
Dichanthium queenslandicum	-	Vulnerable	Endangered	Low
Trioncinia patens	-	Endangered	-	-
Animals				
Geophaps scripta scripta	squatter pigeon	Vulnerable	Vulnerable	Medium
Phascolarctos cinereus	koala	Special least concern	Vulnerable	Low

Table 3: Species listed in international agreements

Scientific name	Common name	Bonn	CAMBA	JAMBA	ROKAMBA
Haliaeetus leucogaster	white-bellied sea-eagle	-	a	-	-
Hirundapus caudacutus	white-throated needletail	-	a	a	a
Merops ornatus	rainbow bee-eater	-	-	a	-
Myiagra cyanoleuca	satin flycatcher	a	-	-	-
Ardea modesta	eastern great egret	-	a	a	-

Scientific name	Common name	Bonn	CAMBA	JAMBA	ROKAMBA
Ardea ibis	cattle egret	-	a	a	-
Gallinago hardwickii	Latham's snipe	a	a	a	a
Rostratula australis	Australian painted snipe	-	a	-	-

Bonn: Bonn Convention

CAMBA: China–Australia Migratory Bird Agreement

JAMBA: Japan–Australia Migratory Bird Agreement

ROKAMBA: Republic of Korea–Australia Migratory Bird Agreement