

Kelvin Area Management Statement 2013

Park size:	Kelvin National Park 37.9ha Kelvin Forest Reserve 3,610ha Kelvin State Forest 695ha Koumala Forest Reserve 104ha Connors Forest Reserve 728.40ha
Bioregion:	Central Queensland Coast
QPWS region:	Central
Local government estate/area:	Mackay Regional Council
State electorate:	Mirani

Legislative framework

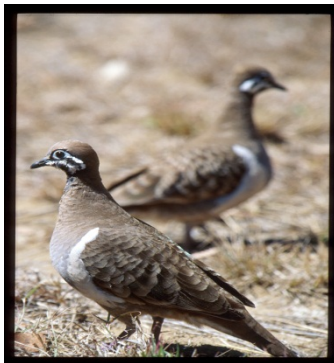
✓	<i>Aboriginal Cultural Heritage Act 2003</i>
✓	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i>
✓	<i>Forestry Act 1954</i>
✓	<i>Native Title Act 1993 (Cwlth)</i>
✓	<i>Nature Conservation Act 1992</i>
✓	<i>Queensland Heritage Act 1992</i>

Plans and agreements

✓	Bonn Convention
✓	China–Australia Migratory Bird Agreement
✓	Japan–Australia Migratory Bird Agreement
✓	Republic of Korea–Australia Migratory Bird Agreement

Thematic strategies

✓	Level 2 Fire Management Strategy
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Squatter pigeons *Geophaps scripta scripta* Photo: NPRSR

Vision

The natural ecosystems, flora and fauna populations within Kelvin Management Area are conserved.

The area is managed to conserve the biological values found within it and to provide safe sustainable, nature based recreation and commercial tourism opportunities

Partnerships are established with Traditional Owners, local community, neighbours, lessees, research institutes, conservation groups, emergency services and Mackay Regional Council that contribute to the area's ongoing management.

Conservation purpose

The objectives of management for the Kelvin Management Area are to:

- protect regional ecosystems and species of conservation significance and their habitats
- conserve and protect the management area's natural, cultural and scenic values
- encourage outdoor recreation activities and commercial tourism opportunities that are in keeping with the area's natural values
- minimise the impact of pests and inappropriate fire regimes on the natural environment
- incorporate the interests and rights of the Traditional Owners and their affiliations to the area by co-operatively protecting and managing cultural heritage
- provide direction and actions to protect the natural, cultural and social values of the area, through appropriate research and monitoring
- foster working relationships with relevant stakeholders to build stronger partnerships to assist management.

Protecting and presenting the area's values

Landscape

Kelvin National Park, Connors and Kelvin forest reserves and Kelvin State Forest are incorporated into the Mackay Highlands management area. The area is of high scenic value with the rugged, mountainous terrain of the Connors Range and provides habitat for significant ecological and conservation values. The Connors Range is composed mainly of ancient igneous rocks laid down during the Upper Carboniferous, Lower Permian and Lower Cretaceous times, some 135–300 million years ago. This volcanic series is composed of granite-diorite/gradiorite complex rocks laid down in the Upper Carboniferous, Lower Permian periods.

Agriculture and primary production occurs throughout the area and includes cane farming and grazing. Mining infrastructure, such as railways and dams, also exist in the area.

Regional ecosystems

There are 13 regional ecosystems in the management area, with four listed as of concern and three listed as endangered (Table 1).

Plants and animals

The Kelvin Management Area provides habitat for two significant plant species, listed under state legislation (Table 2).

One fauna species of conservation significance has been recorded in the management area, and a further nine are identified as having habitat occurring or potentially occurring in the management area (Table 2).

Kelvin State Forest is dominated by microphyll vine forest and eucalyptus open forests and woodlands. The areas of highest altitude areas support communities of microphyll mossy vine forest. Leaf tail geckos *Phyllurus championae* are endemic to the Central Queensland Coast Bioregion and are found within the rainforest on scree slopes of Kelvin State Forest. These are listed as critical on the Back on Track Species Prioritisation Framework.

Kelvin National Park supports mixed eucalypt open forests and microphyll vine rainforest communities. The eucalypt forest habitat supports suitable habitat for the endangered northern quolls *Dasyurus hallucatus*.

Microphyll vine forest and eucalypt forests dominate Connors and Koumala forest reserves on granite soils. The mixed open eucalyptus woodland provide important habitat for squirrel gliders *Petaurus norfolcensis* and koalas *Phascolarctos cinereus*.

There are 11 bird species listed in international agreements that occur or are likely to occur in the management area (Table 3).

Aboriginal culture

A native title claim Barada Barna people (QC08/11) covers part of the Kelvin Forest Reserve and part of Kelvin State Forest. An Indigenous Land Use Agreement exists over the southern end of Kelvin Forest Reserve and Kelvin State Forest titled Arrow Barada Barna People and Wiri People LNG Project.

Limited information is available about sites of cultural significance and values in the management area. A cultural survey has not been undertaken in the management area; however, it is reasonable to expect that further cultural sites and artefacts occur. In the absence of information the precautionary principle should be applied in respect to the potential presence of cultural heritage sites.

It is important for the Queensland Parks and Wildlife Service (QPWS) to continue to work with the Traditional Owners to identify cultural connections and ensure appropriate measures are taken to protect known sites in the area. QPWS will work towards ensuring Traditional Owners are actively participating in the day-to-day management and that cultural heritage is protected by maintaining relationships with the Traditional Owners.

Tourism and visitor opportunities

The Kelvin Management Area is a part of the Mackay Highlands. Within the Mackay Highlands is more than 250,000ha of protected area, forests, and reserves including the internationally recognised Eungella National Park. The natural assets of the area and the variety of visitor opportunities offer visitors a chance to experience an area of tropical Queensland.

Access to Kelvin National Park, Kelvin State Forest, and Koumala, Kelvin and Connors forest reserves are currently only accessed via tracks on private property to the QPWS estate boundary. Permission from landholders is required to traverse through private property to the QPWS estate. Once at the QPWS boundary, visitors can explore the areas by foot.

Future tenure dealings in this area will seek to improve public access to the area to enable greater use of the area for recreation opportunities.

Education and science

The management area offers learning opportunities in geology and biology. The area also provides opportunities for scientific research and monitoring for the leaf tail geckos. Results from research and monitoring can benefit the area's management and educate staff and the community.

Further surveys would provide improved direction on the protection of flora and fauna species and the impact of threatening processes of inappropriate fire regimes, pest animal and plant species.

Partnerships

QPWS is directly responsible for planning, managing and regulating activities in the management area. Working with neighbours, Traditional Owners, organisations, councils, user groups and individuals with similar interests 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 that 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.

Other key issues and responses

Pest management

There is no pest management strategy for the management area. A pest management strategy will be developed and implemented. Pest plant and animal surveys and monitoring have been limited in the management area and further information is required to understand the impacts of pests.

Tobacco weed *Elephantopus mollis* is considered a threat to the management area. It is a declared Class 2 pest plant within the Weeds of National Significance database. Tobacco weed seeds prolifically spread and have the potential to smother native grasses and shrubs. Kelvin State Forest is at the top of the catchment and has a large infestation of tobacco weed. It has the potential to spread to neighbouring properties and reduce pasture productivity. The aim is to map the current infestation and treat areas where feasible.

Giant rat's tail grass *Sporobolus pyramidalis* is a declared Class 2 pest plant within the Weeds of National Significance database. Giant rat's tail grass has the potential to out-compete native grasses and cause more intense fires. The aim is to identify and map the areas and identify management options where possible.

Lantana *Lantana camara* is a declared Class 3 pest plant under the Weeds of National Significance database. The aim is to identify and map the areas of infestation and identify management options where possible.

Feral pigs *Sus scrofa* are a declared Class 2 pest under the *Land Protection (Pest and Stock Route Management) Act 2002*. They cause significant damage and degradation of waterholes, spread pest plants and diseases, consume native species including frogs and cause significant losses to neighbouring properties. The aim is to monitor impacts and work cooperatively with neighbours to manage impacts.

Wild dogs *Canis familiaris* are a declared Class 2 under the Land Protection (Pest and Stock Route Management) Act. They cause significant damage to livestock on neighbouring properties. The property owners surrounding the management area regularly bait to control wild dogs on their land. QPWS will continue to work cooperatively with neighbours to control wild dog numbers.

QPWS, lessees and permit holders on QPWS estate will work cooperatively to manage pest plants and animals within their lease area.

Fire management

QPWS has a statewide fire management system. QPWS is the primary agency for fire management on protected areas and State forests. A Level 2 fire management strategy was developed in 2007 for the management area. Fire strategies provide the overall framework and direction for fire management and are the foundation from which planned burn programs are developed.

Managing fire is a high priority as wildfires may threaten life, property, commercial assets and biodiversity values. Protecting and managing vegetation communities and native animals is complex. Inappropriate fire regimes can result in significant damage to native animal and plant habitats. Fire frequency, timing and intensity can threaten many species through loss of nesting and feeding habitat, loss of individuals and habitat degradation. The rainforest vegetation communities in the management area are fire sensitive, and where practical the communities must be protected from fire.

QPWS has a responsibility to protect its neighbours from damaging effects of fire and will work closely with neighbours and lessees to manage fire.

Authorities

Grazing is authorised on a portion of Kelvin State Forest under the *Forestry Act 1954*. A term lease for grazing is authorised on Connors Forest Reserve under the *Land Act 1994*.

A proposed quarry site has been identified in Kelvin State Forest. If gravel extracted from this estate it will be used to maintain roads in the Mackay and Isaac regional council areas.

Power lines traverse Kelvin State Forest. These power lines are recognised in a Deed of Agreement for Electricity Works on Protected Area between the State of Queensland and the Queensland Electricity Transmission Corporation Limited, Ergon Energy Corporation Limited and Energex (Queensland Government 2009).

Exploration and mineral development approvals exist in the Kelvin area.

Exploration permits and mineral development licences are accessed in accordance with the *Environmental Protection Act 1994* and *Mineral Resources Act 1989*. All mining and exploration permits and licences issued on QPWS estate are assessed by the Department of Natural Resources and Mines with advice from QPWS in relation to management of sensitive areas and protection of significant species, habitat and biodiversity values.

An Aurizon railway line easement traverses Kelvin Forest Reserve. A railway line runs to the south-east of the management area. This railway is to be upgraded to multiple lines, and require an area of land to be revoked from the forest reserve.

References

Queensland Government 2009, *Deed of Agreement for Electricity Works on Protected Area between the State of Queensland and the Queensland Electricity Transmission Corporate Limited, Ergon Energy Corporation Limited and Energex.*

Management directions

Desired outcomes	Actions and guidelines
<p>Landscape</p> <p>The landscape is protected, particularly areas of high scenic quality or traditional or cultural significance, while allowing natural processes to continue.</p> <p>The full range of naturally occurring biological diversity, ecological processes and landscape dynamics are maintained.</p>	<p>A1. Monitor the impacts from natural processes, pests, fire and recreation. Use the information to guide management decisions and amend current and future plans and strategies.</p> <p>A2. Ensure any activities are consistent with the high scenic landscape values. Activities that compromise these values.</p> <p>A3. Develop and implement a pest strategy noting to:</p> <ul style="list-style-type: none"> • map pest infestations and develop further strategies to control; • cooperatively manage pests with neighbours and lease holders; • Minimise threats through appropriate fire regimes, strategic grazing and pest plant and animal control; and • Incorporate new information about threatened plants, animals or communities into plans or strategies. <p>A4. Develop and implement a Level 1 fire management strategy noting:</p> <ul style="list-style-type: none"> • conduct low intensity burning in vegetation adjacent to fire-sensitive communities. • maintain existing fire control lines throughout the management area and on boundaries. • regulate the frequency and intensity of fire to maintain the composition structure and ecological dynamics of all regional ecosystems. • undertake cooperative fire management with neighbours and lease holders.
<p>Visitor and tourism opportunities</p> <p>Visitor use provides for a range of sustainable, self-reliant, outdoor recreation and tourism opportunities that meet and adapt to visitor needs with minimal impact on the natural and cultural values.</p>	<p>A5. Visitor facilities will be provided in response to use rates and demand and will be developed in a co-operation with the user groups.</p>

Desired outcomes	Actions and guidelines
<p>Partnership</p> <p>The effectiveness of future management is strengthened through cooperative partnerships.</p>	<p>A6. Continue to build relationships with the local community, visitors and interest groups to improve knowledge of the management area, and to highlight its significance to the region.</p> <p>A7. Encourage and support Traditional Owners in conducting cultural heritage survey including recording sites, stories, language names and cultural heritage places.</p> <p>A8. Encourage and allow access for the implementation of research programs that will benefit conservation management. Incorporate new information into plans and strategies and WildNet.</p>

Tables – Conservation values management

Table 1: Endangered and of concern regional ecosystems

Estate Name	Regional ecosystem number	Description	Biodiversity status
Kelvin State Forest	8.12.17a	Microphyll mossy vine forest at highest altitudes on extensive plateaus of mountains on Mesozoic to Proterozoic igneous rocks	Of concern
Kelvin State Forest	8.12.19	Complex notophyll feather palm vine forest with <i>Argyrodendron actinophyllum</i> subsp. <i>diversifolium</i> and sub-canopy of <i>Myristica globosa</i> subsp. <i>muelleri</i> , on moist, low to moderate, coastal and sub coastal ranges on Mesozoic to Proterozoic igneous rocks	Of concern
Kelvin State Forest	8.12.27b	<i>Corymbia intermedia</i> , <i>Eucalyptus tereticornis</i> , <i>Corymbia tessellaris</i> and <i>Livistona decora</i> +/- rainforest spp. open-forest, on low hills on Mesozoic to Proterozoic igneous rocks	Endangered
Kelvin State Forest	8.12.9	<i>Eucalyptus tereticornis</i> +/- <i>Lophostemon suaveolens</i> +/- <i>Corymbia intermedia</i> woodland to open-forest on undulating uplands, on Mesozoic to Proterozoic igneous rocks	Of concern
Kelvin State Forest	8.3.3a	<i>Melaleuca leucadendra</i> or <i>Melaleuca fluviatilis</i> and/or <i>Casuarina cunninghamiana</i> fringing open-forest to woodland on sandy or rocky creek beds	Of concern
Kelvin State Forest	8.3.5	<i>Corymbia clarksoniana</i> +/- <i>Lophostemon suaveolens</i> +/- <i>Eucalyptus platyphylla</i> open-forest to woodland, or <i>Eucalyptus platyphylla</i> open-forest to woodland on alluvial plains	Endangered
Kelvin State Forest	8.3.6a	<i>Eucalyptus tereticornis</i> , <i>Corymbia intermedia</i> (or <i>Corymbia clarksoniana</i>) and <i>Lophostemon suaveolens</i> open-forest on river and creek terraces and alluvial fans (subregions 1-3 and 6)	Endangered

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 species prioritisation framework (BOT)
Plants				
* <i>Actephila sessilifolia</i>	-	Near threatened	-	Low
* <i>Actephila championiae</i>	-	Vulnerable	-	Low
Animals				
^ <i>Dasyurus hallucatus</i>	northern quoll	Least concern	Endangered	Medium
^ <i>Erythrotriorchis radiatus</i>	red goshawk	Endangered	Vulnerable	High
^ <i>Geophaps scripta scripta</i>	squatter pigeon	Vulnerable	Vulnerable	Medium
* <i>Phyllurus championae</i>	leaf tail gecko	Least concern	-	Critical

Scientific name	Common name	Nature Conservation Act 1992 status	Environment Protection and Biodiversity Conservation Act 1999 status	Back on Track species prioritisation framework (BOT)
^ <i>Nyctophilus corbeni</i>	south-eastern long-eared bat	Vulnerable	Vulnerable	Medium
^ <i>Phascolarctos cinereus</i>	koala	Least concern	Vulnerable	Low
^ <i>Pteropus conspicillatus</i>	spectacled flying-fox	Vulnerable	Vulnerable	High
^ <i>Pteropus poliocephalus</i>	grey-headed flying-fox	Least concern	Vulnerable	Critical
^ <i>Rostratula australis</i>	Australian painted snipe	Vulnerable	Vulnerable	Medium

*confirmed to occur

^ likely to occur as habitat is present

Table 3: Species listed in international agreements

Scientific name	Common name	Bonn	CAMBA	JAMBA	ROKAMBA
<i>Apus pacificus</i>	fork-tailed swift	-	✓	✓	✓
<i>Ardea modesta</i>	eastern great egret	-	✓	✓	-
<i>Ardea ibis</i>	cattle egret	-	✓	✓	-
<i>Gallinago hardwickii</i>	Latham's snipe	✓	✓	✓	✓
<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle	-	✓	-	-
<i>Hirundapus caudacutus</i>	white-throated needletail	-	✓	✓	✓
<i>Hirundo rustica</i>	barn swallow	-	✓	✓	✓
<i>Merops ornatus</i>	rainbow bee-eater	-	-	✓	-
<i>Monarcha melanopsis</i>	black-faced monarch	✓	-	-	-
<i>Myiagra cyanoleuca</i>	satin flycatcher	✓	-	-	-
<i>Rostratula australis</i>	Australian painted snipe	-	✓	-	-

Bonn – Bonn Convention

CAMBA – China–Australia Migratory Bird Agreement

JAMBA – Japan–Australia Migratory Bird Agreement

ROKAMBA – Republic of Korea–Australia Migratory Bird Agreement