

Maria Creek National Park Management Statement 2013

Park size:	749ha
Bioregion:	Wet Tropics
QPWS region:	Northern
Local government estate/area:	Cassowary Coast Regional Council
State electorate:	Hinchinbrook



Maria Creek National Park. Photo: NPRSR

Vision

Maria Creek National Park protects a small remnant of coastal wetland and littoral rainforest and provides important breeding habitat for a range of threatened species.

The natural integrity and biodiversity values of Maria Creek National Park are preserved through appropriate management of fire and pests.

Conservation purpose

Most of Maria Creek National Park was gazetted in 1976 with the addition of a number of smaller parcels in 1992.

The park conserves coastal wetlands and other habitats that are poorly protected elsewhere due to land clearing. *Melaleuca viridiflora* wetlands within the park are listed as an endangered ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* due to their very restricted geographic distribution and relatively low level of landscape wide reservation.

Legislative framework

✓	<i>Aboriginal Cultural Heritage Act 2003</i>
✓	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
✓	<i>Land Protection (Pest and Stock Route Management) Act 2002</i>
✓	<i>Native Title Act 1993</i> (Commonwealth)
✓	Nature Conservation (Estuarine Crocodile) Conservation Plan 2007 and Management Program 2007–2017
✓	Nature Conservation (Protected Areas Management) Regulation 2008
✓	Nature Conservation (Wildlife) Regulation 2006
✓	<i>Nature Conservation Act 1992</i>

Plans and agreements

✓	Bonn Convention
✓	China—Australia Migratory Bird Agreement
✓	Japan—Australia Migratory Bird Agreement
✓	Recovery plan for the southern cassowary <i>Casuarius casuarius johnsonii</i>
✓	Republic of Korea—Australia Migratory Bird Agreement

Thematic strategies

✓	Level 2 fire strategy
✓	Level 2 pest strategy

Protecting and presenting the park's values

Landscape

Maria Creek National Park is located on the coastal plain in the Wet Tropics bioregion. The central feature of the reserve is Maria Creek, the catchment of which originates from agricultural land primarily used for sugar cane production outside the reserve's boundary.

The park is relatively flat, rising little more than 20 metres (m) above sea level. Maria Creek National Park is composed principally of freshwater and estuarine wetland systems which act as a filter for runoff destined for the Great Barrier Reef lagoon.

Although the primary surrounding land use is sugar cane production, cattle grazing and aquaculture also occur within the catchment. The residential community of Kurrimine Beach adjoins the eastern boundary of the park.

Regional ecosystems

The 13 regional ecosystems contained within Maria National Park represent a diverse and complex mosaic of vegetation communities. Ten regional ecosystems are considered endangered and two are considered of concern (Table 1).

Approximately 70% of the park is composed of mangrove communities and dry sclerophyll woodlands. The remainder ranges from complex mesophyll vine forest (littoral rainforest) to open swampy sedgeland. All communities, excluding the mangroves, have a biodiversity status of endangered or of concern.

Melaleuca viridiflora wetlands and littoral rainforest communities are also considered endangered under the *Environmental Protection and Biodiversity Conservation Act 1999*.

Native plants and animals

Very few records for native plants and animals exist for Maria Creek National Park. Those that do exist include significant species such as the southern cassowary *Casuarius casuarius johnsonii* and the estuarine crocodile *Crocodylus porosus*. The lack of information on flora and fauna in Maria Creek National Park represents a significant knowledge gap and requires consideration to assist in the future management of the reserve.

The complex mosaic of vegetation and anecdotal wildlife records suggest Maria Creek National Park possesses a high diversity of flora and fauna. Reports by park managers include tea-tree orchids *Dendrobium canaliculatum*, ant plants *Myrmecodia beccarii* and sundews *Drosera* spp. A high diversity of snakes, monitors and birds particularly migratory species and raptors has also been reported.

Aboriginal culture

Maria Creek forms the boundary between two Traditional Owner groups—to the north, the MaMu people who have a pending Native Title claim lodged for the section of the park to the north of Maria Creek (QC01/15) and, to the south, the Djiru people, whose Native Title claim was recognised in 2011.

Djiru people have a long standing traditional connection to the park. Their Native Title determination recognises their native title rights and interests which include the right to hunt, to access the area, to carry out ceremony and to camp. The Djiru peoples' connection to country continues strongly today. Djiru people are keen to participate in the ongoing management of the park.

Shared-history culture

Maria Creek National Park was named after the brig *Maria* that was shipwrecked in 1782 en route to New Guinea from Sydney with 80 crew and passengers aboard. The ship hit Bramble Reef to the east of Cardwell. Two makeshift rafts full of survivors were set adrift, making landfall somewhere near what is now known as Maria Creek.

Tourism and visitor opportunities

Maria Creek National Park currently receives low visitor use. This is likely due to very limited public access and the expanses of wetland within the park. With improvements in access and infrastructure the reserve would present suitable opportunities for nature based tourism and visitor use, particularly bird watching.

Fishing including for mud crabs and other invertebrates is allowed within Maria Creek National Park.

Other key issues and responses

Fire management

Fire management on Maria Creek National Park is focussed on maintaining representative forest types and regional ecosystems within the park.

Pest management

Pest plants

Pest plants represent one of the main threats to the natural integrity of Maria Creek National Park. Following Tropical Cyclone Yasi in 2011 the declared class 1 Siam weed *Chromolaena odorata* spread from surrounding farms into the southern section of the park. Siam weed is very difficult to control and currently infests several endangered regional ecosystems. Control programs are undertaken, however, cyclones promote seed spread and create the disturbed conditions preferred by the species.

Pond apple *Annona glabra* is a Weed of National Significance and a class 2 pest plant in Queensland. It is regarded as one of the worst pest plants in Australia because of its invasiveness, potential for spread, and economic and environmental impacts. Significant infestations occur within the park. The presence of estuarine crocodiles *Crocodylus porosus* inhibits control efforts for pond apple.

Olive hymenachne *Hymenachne amplexicaulis* occurs within the park. It is a semi-aquatic grass that was introduced as fodder in tropical wetlands of northern Queensland. Olive hymenachne is considered a Weed of National Significance and is a declared class 2 pest plant in Queensland. Control efforts are hampered by difficulties with site access and continual re-infestation from surrounding properties.

Invasive plants are seen as the greatest threat to the conservation of Maria Creek National Park because infestations encroach from surrounding lands.

Pest animals

Feral pigs *Sus scrofa* are significant pests in Maria Creek National Park. They promote pest plants by spreading propagules and creating soil disturbance, and also directly impact native wildlife. For example, feral pigs prey upon crocodile eggs.

Damage caused by the foraging activity of feral pigs is evident broadly across the park. Control is undertaken on the park's boundary and within surrounding properties, however, access and safety risks limit control efforts within the park.

Management directions

Desired outcomes	Actions and guidelines
<p>Native plants and animals Information on the occurrence and distribution of plant and animal communities is sufficient for management purposes.</p>	<p>A1. Undertake biological surveys of the park including targeted vegetation surveys and surveys of animal species of conservation concern.</p>
<p>Fire and pest management The integrity of native plant and animal communities is maintained through strategic, sustained pest and fire management.</p>	<p>A2. Manage serious environmental pest plants to allow regeneration and recovery of native vegetation following cyclonic events.</p> <p>A3. Establish and maintain a suitable fire regime to promote recovery and resilience of vegetation to pest plants and cyclone events.</p>

Tables – Conservation values management

Table 1: Endangered and of concern regional ecosystems

Regional ecosystem	Description	Biodiversity status
7.1.3a	<i>Schoenoplectus litoralis</i> and/or <i>Eleocharis dulcis</i> sparse sedgeland, +/- sparse <i>Melaleuca quinquenervia</i> and/or mangrove species. Interface between fresh and estuarine waters	Endangered
7.1.3b	<i>Melaleuca quinquenervia</i> woodland to open-forest, and shrubland to closed-scrub at the interface between fresh and estuarine waters	Endangered
7.2.1a	Complex mesophyll or mesophyll vine forest on sands of beach origin	Endangered
7.2.4d	<i>Eucalyptus pellita</i> and <i>Corymbia intermedia</i> , +/- <i>C. tessellaris</i> , <i>E. tereticornis</i> , <i>Lophostemon suaveolens</i> , <i>Acacia celsa</i> , <i>A. cincinnata</i> , <i>A. mangium</i> and <i>A. flavescens</i> open-forest on weathered relict beach ridges	Of concern
7.3.10a	Mesophyll vine forest on moderately to poorly-drained alluvial plains, of moderate fertility	Endangered
7.3.25a	<i>Melaleuca leucadendra</i> open forest and woodland, on stream levees and prior streams	Of concern
7.3.35a	<i>Acacia mangium</i> and <i>A. celsa</i> open to closed forest of lowland alluvial plains	Endangered
7.3.4	Mesophyll vine forest with <i>Licuala ramsayi</i> , on poorly drained alluvial plains and alluvial areas of uplands	Endangered
7.3.5a	<i>Melaleuca quinquenervia</i> open-forest, woodland and shrubland, on poorly drained alluvial plains	Endangered
7.3.7a	<i>Eucalyptus pellita</i> and <i>Corymbia intermedia</i> open-forest to woodland, on poorly drained alluvial plains and swamps.	Endangered
7.3.7b	<i>Eucalyptus pellita</i> and <i>Corymbia intermedia</i> open forest and woodland, with a very well developed vine forest understorey, on poorly drained alluvial plains and swamps	Endangered
7.3.8a	<i>Melaleuca viridiflora</i> open-forest to open-woodland, on poorly drained alluvial plains. Includes areas of natural invasion onto former grasslands	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 status
<i>Casuarium casuarium johnsonii</i> (southern population)	southern cassowary (southern population)	Endangered	Endangered	Critical
<i>Crocodylus porosus</i>	estuarine crocodile	Vulnerable	-	Low
<i>Esacus magnirostris</i>	beach stone-curlew	Vulnerable	-	High

Table 3: Species listed in international agreements

Scientific name	Common name	Bonn	CAMBA	JAMBA	ROKAMBA
<i>Pandion cristatus</i>	eastern osprey	✓	-	-	-
<i>Egretta sacra</i>	eastern reef egret	-	-	-	✓
<i>Charadrius leschenaultii</i>	greater sand plover	✓	✓	✓	✓
<i>Crocodylus porosus</i>	estuarine crocodile	✓			
<i>Merops ornatus</i>	rainbow bee-eater	-	✓	-	-

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