

Halifax Bay Wetlands National Park Management Statement 2013

Park size:	5,603ha
Bioregion:	Wet Tropics
QPWS region:	Northern
Local government estate/area:	Hinchinbrook Shire Council
State electorate:	Hinchinbrook



Halifax Bay Wetlands. Photo: NPRSR.

Legislative framework

✓	<i>Aboriginal Cultural Heritage Act 2003</i>
✓	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwth)</i>
✓	<i>Nature Conservation Act 1992</i>
✓	<i>Queensland Heritage Act 1992</i>

Plans and agreements

✓	Recovery plan for the mahogany glider <i>Petaurus gracilis</i> 2007
✓	Nature Conservation (Estuarine Crocodile) Conservation Plan and Management Program 2007-2017

Thematic strategies

✓	Statement of Fire Management Intent (draft)
✓	Level 2 Pest Strategy (draft)

Vision

Halifax Bay Wetlands National Park continues to maintain and enhance an outstanding array of complex coastal lowland wetlands and fragile fore-dunes and to protect significant animal and plant communities.

Conservation purpose

The park protects saltmarsh and mangrove ecosystems that provide habitat for local and internationally recognised species of conservation significance such as the mahogany glider, estuarine crocodile, beach stone-curlew, little tern and numerous migratory waders and shorebirds.

The park's estuary creeks, salt pans and paperbark wetlands provide important fisheries habitat for a range of species including barramundi and mud crab.

Protecting and presenting the park's values

Landscape

Halifax Bay Wetlands National Park has high scenic amenity as a lowland wetland and coastline on the Herbert River coastal plain, with an almost completely natural vista along the foreshore looking towards the Palm Island group south to Magnetic Island. One road, providing visitor access to Bronte Beach, is the park's single gazetted access, however over 60 kilometres (km) of four-wheel drive vehicle tracks exist.

The surrounding landscape is predominantly agricultural and residential. Lands cultivated for sugar cane and grazing, have historically lowered the water table and exposed acid sulphate soils. A tidal gate, damaged by 2009 flooding and Tropical Cyclone Yasi 2011, has affected saline interchange of paperbark wetlands on the adjoining Mungulla property.

Halifax Bay Wetlands National Park is within the lower Herbert floodplain and includes many estuarine creeks. The park has important palustrine wetlands, which are primarily vegetated, non-channel environments, such as billabongs, swamps, soaks and bogs. Mangroves, saltmarsh and samphire dominated salt pans feature as landscape elements of the park.

The park is listed in the Directory of Important Wetlands in Australia. Brolgas, jabirus and numerous wader species are associated with the park's freshwater and saline wetlands.

Regional ecosystems

Seventeen regional ecosystems are represented in the park. Ten ecosystems considered to be endangered and six considered to be of concern (Table 1) cover approximately 40 per cent of the park.

The park conserves simple vine forest associated with swale and ridge sclerophyll open forests, coastal wetlands containing *Melaleuca quinquenervia* forests, sedgelands and grasslands, and mangrove forests. Small, scattered examples of coastal littoral rainforest pockets also occur adjacent to the park's foredune communities which are listed under the *Environment Protection and Biodiversity Conservation Act 1999*.

About 20% of the park consists of endangered *Melaleuca quinquenervia* forest, bulkuru and the fragile and easily damaged foredune community. The Hinchinbrook Channel to the north represents the nearest comparable protected fisheries habitat network.

Native plants and animals

To date, 78 native plant and 102 animal species have been recorded for the park. The list is known to be incomplete but representative across all taxa, except invertebrates and reptiles.

The park conserves at least six species of conservation significance, which include the endangered mahogany glider *Petaurus gracilis* and little tern *Sternula albifrons* (Table 2). Three species of birds are listed in international agreements (Table 3).

Although the estuarine crocodile *Crocodylus porosus* has not been recorded on the park, it has been recorded 200 metres (m) from the park boundary and the area is known to be a significant breeding area for the species. It is anticipated that crocodiles do inhabit the park itself.

The park is likely to contain the vulnerable ant plant *Myrmecodia beccarii* and Apollo jewel butterfly *Hypochrypsys apollo apollo*, as the park contains regional ecosystems that support suitable habitat.

Endangered mahogany gliders may be present as a relic population from a much wider prior distribution that was heavily reduced and fragmented by clearing. The adjoining Forrest Beach represents one of the most eastern locations for the mahogany glider, with the broader Halifax Bay area from the coastline inland to the Bruce Highway considered a highly fragmented isolated metapopulation.

Broad areas of complex mangrove communities exist in the park and these areas have remained relatively undisturbed by non-Aboriginal settlement. Halifax Bay and the associated Cattle Creek represent the southern extent of one of the largest mangrove systems in the Wet Tropics. It extends down towards Rollingstone and north to the Hinchinbrook Channel of Girringun and Hinchinbrook Island national parks. The continued protection of these mangrove habitats is important and is enhanced by the declared Halifax Bay Wetlands Fish Habitat Area. These mangrove areas have a range of fishery values including habitat for barramundi and mud crabs.

Aboriginal culture

Halifax Bay Wetlands National Park, the adjoining Mungulla Station and the broader area of the Herbert floodplain are highly significant to the Nwaigi people.

The Nwaigi people express a desire to be involved with Halifax Bay Wetland National Park as custodians and land managers. They are actively engaged by Queensland Parks and Wildlife Services (QPWS) as part of the broader Giringun ranger program.

Shared-history culture

Halifax Bay Wetlands National Park (1978 boundary) was originally registered as three parcels of mangrove fisheries habitat, with a small area also encompassing representative lowland vegetation of the coastal plain, rich bird habitat, and unique swamplands of the wet tropical lowlands.

Palm Creek was a significant factor for the settlement of the Ingham township, with wharves, jetties and other features common along the banks. Very little of these historical relics persist, with the most evident on the adjoining Mungulla Station and cemetery.

Tourism and visitor opportunities

Camping and fishing are popular activities in Halifax Bay Wetlands National Park. No visitor facilities are provided in the park.

Most visitor activity is four-wheel drive vehicle or vessel based. People predominantly access the creeks from the Crystal Creek or Forrest Beach boat ramps which are not in the park. Palm Creek, Ollera Creek and Crystal Creek are the main destination points, however, people also venture into minor creeks and branches of these main rivers.

Education and science

Halifax Wetlands provide valuable opportunities for scientific research in the saltmarsh and mangrove ecosystems and associated fauna.

Partnerships

The Wet Tropics Management Authority, Great Barrier Reef Marine Park Authority and the Nwaigi Traditional Owners are valued partners in managing the park.

Other key issues and responses

Pest management

Pest species of relative high concern for Halifax Bay Wetlands National Park include pond apple *Annona glabra*, hymenachne *Hymenachne amplexicaulis* and feral pigs *Sus scrofa*. All are known to occur within the park or on adjacent areas such as the upstream section of Palm Creek. Class 2 pest plants include sicklepod *Senna obtusifolia*, pond apple *Annona glabra* and hymenachne *Hymenachne amplexicaulis* and one class 3 pest plant, lantana *Lantana camara*. All these species are Weeds of National Significance and are observed in high density in disturbed locations. Despite that, the park maintains a high level of natural integrity.

Pest plant mapping, a trial of feral pig baiting and sicklepod monitoring transects have been commenced to improve QPWS's knowledge base for directing pest management.

Fire management

Inappropriate fire regimes, particularly as a result of too frequent burning due to arson, are considered a threat to coastal lowland open forests and their structural integrity. Restoring the structure and improving the maintenance of the *Corymbia* open forest and similar ecosystems is dependant on achieving appropriate fire intervals. This will not be achieved from implementing any one single burn, but by restoring a series of burns as an active program over several years.

Fire is considered to have an ecological role in the balance with peat layers and maintaining a natural inundation and drainage pattern. Inappropriate fire events such as wildfire may threaten the persistence of the peat layer in swampy ecosystems of Halifax Bay Wetlands National Park. The deeper incisions of artificial drainage channels historically associated with adjoining agriculture may make peat layers more vulnerable to ignition. In turn these fire events can generate long periods of smoke emission that affect surrounding residential communities.

Management directions

Desired outcomes	Actions and guidelines
<p>Native plants and animals</p> <p>Subject to natural variation, the diversity and values of native plants and animals (particularly significant species) are well represented, and where possible enhanced, in perpetuity.</p>	<p>A1. Update departmental databases with improved knowledge of the park and its resources.</p> <p>A2. Determine whether ant plants and Apollo jewel butterflies exist in the park.</p> <p>A3. Actively manage pests and fire to maintain the park's significant biodiversity values, particularly its coastal wetlands.</p> <p>A4. Where appropriate, rehabilitate degraded areas, with a focus on maintaining wildlife corridors and riparian vegetation.</p>
<p>Aboriginal culture</p> <p>Traditional Owners are involved in park management.</p>	<p>A5. Involve the Nwaigi people in park management and document and protect Aboriginal cultural sites and places in a culturally appropriate manner.</p>
<p>Shared-history culture</p> <p>Sites and materials of historical significance are identified, preserved and, where appropriate, conserved.</p>	<p>A6. Protect and present historical sites and materials such as the Whispering Grave.</p>
<p>Tourism and visitor opportunities</p> <p>Visitor use complements the park's natural setting and does not compromise its natural and cultural values.</p>	<p>A7. Maintain existing vessel-based opportunities in the park.</p>

Tables—Conservation values management

Table 1: Endangered and of concern regional ecosystems

Regional ecosystem number	Regional ecosystem name	Biodiversity status
7.1.2	<i>Sporobolus virginicus</i> grassland, samphire open forbland to sparse forbland, and bare salt pans, on plains adjacent to mangroves.	Of concern
7.1.3	<i>Schoenoplectus litoralis</i> and/or <i>Eleocharis dulcis</i> sparse sedgeland, or <i>Melaleuca quinquenervia</i> shrubland to open forest, in swamps which fluctuate periodically between freshwater and estuarine	Endangered
7.1.5	<i>Melaleuca viridiflora</i> or <i>Melaleuca</i> spp. +/- <i>Acacia</i> spp. +/- mangrove spp. shrubland, open woodland and open forest on plains adjacent to mangroves.	Of concern
7.2.2	Notophyll to microphyll vine forest on beach ridges and sand plains of beach origin.	Endangered
7.2.3	<i>Corymbia tessellaris</i> and/or <i>Acacia crassicaarpa</i> and/or <i>C. intermedia</i> and/or <i>C. clarksoniana</i> closed forest to woodland, of beach ridges, predominantly of Holocene age.	Of concern
7.2.4	<i>Eucalyptus</i> spp. (often <i>E. pellita</i> or <i>Corymbia intermedia</i>) open forest and/or <i>Lophostemon suaveolens</i> open forest on swampy sand plains of beach origin, and Pleistocene beach ridges.	Of concern
7.2.7	<i>Casuarina equisetifolia</i> +/- <i>Corymbia tessellaris</i> open forest +/- groved vine forest shrublands of the beach strand and foredune.	Endangered
7.2.8	<i>Melaleuca leucadendra</i> open forest to woodland. Sands of beach origin.	Endangered
7.3.5	<i>Melaleuca quinquenervia</i> and/or <i>Melaleuca cajaputi</i> closed forest to shrubland on poorly drained alluvial plains.	Endangered
7.3.6	<i>Melaleuca dealbata</i> +/- <i>Melaleuca leucadendra</i> open forest on poorly drained alluvial plains.	Endangered
7.3.8	<i>Melaleuca viridiflora</i> +/- <i>Eucalyptus</i> spp. +/- <i>Lophostemon suaveolens</i> open forest to open woodland on alluvial plains.	Endangered
7.3.9	<i>Corymbia tessellaris</i> , <i>Acacia</i> spp., <i>Melaleuca</i> spp., open forest on poorly drained alluvial plains.	Endangered
7.3.19	<i>Corymbia intermedia</i> or <i>C. tessellaris</i> +/- <i>Eucalyptus tereticornis</i> open forest (or vine forest with these species as emergents), on well drained alluvium.	Of concern
7.3.25	<i>Melaleuca leucadendra</i> +/- vine forest species, open to closed forest, on alluvium fringing streams.	Of concern
7.3.40	<i>Eucalyptus tereticornis</i> medium to tall open forest on well drained alluvial plains of lowlands.	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
Animals				
<i>Aerodramus terraereginae</i>	Australian swiftlet	Near threatened	-	Low
<i>Ephippiorhynchus asiaticus</i>	black-necked stork	Near threatened	-	Low
<i>Esacus magnirostris</i>	beach stone-curlew	Vulnerable	-	High
<i>Orcaella heinsohni</i>	Australian snubfin dolphin	Near threatened	-	Critical
<i>Petaurus gracilis</i>	mahogany glider	Endangered	Endangered	Critical
<i>Sternula albifrons</i>	little tern	Endangered	-	High

Table 3: Species listed in international agreements

Scientific name	Common name	Bonn	CAMBA	JAMBA	ROKAMBA
<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle	-	✓	-	-
<i>Merops ornatus</i>	rainbow bee-eater	-	-	✓	-
<i>Pandion cristatus</i>	eastern osprey	✓	-	-	-

Bonn: Bonn Convention

CAMBA: China–Australia Migratory Bird Agreement

JAMBA: Japan–Australia Migratory Bird Agreement

ROKAMBA: Republic of Korea–Australia Migratory Bird Agreement