

# Magnetic Island National Park

Incorporates: Magnetic Island National Park, Horseshoe Bay Lagoon Conservation Park, Bolger Bay Conservation Park, Magnetic Island Conservation Park 1, Magnetic Island Conservation Park 2



*Nginda dungarri nhagi ngarrini bi nya*  
*Wulgurukaba people welcome you to Yunbenun*

## Management Statement

2023

This management statement has been prepared and co-designed by the Wulgurukaba People and Queensland Parks & Wildlife Service (QPWS), Department of Environment, Science, and Innovation.

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The Wulgurukaba Yunbenun Aboriginal Corporation and the Wulgurukaba Aboriginal Corporation approve the current *Magnetic Island Management Statement* as a framework document for the Wulgurukaba People and QPWS to undertake our custodial obligations under the Commonwealth Government, Queensland Government, local government and Wulgurukaba traditions and customary lore.

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## Contents

<b>1. Introduction.....</b>	<b>4</b>
1.1 Approach to best practice management.....	4
1.2 Management planning .....	5
1.3 Management statement and thematic strategies .....	6
<b>2. The Wulgurukaba People.....</b>	<b>7</b>
2.1 Wulgurukaba People, Yunbenun Country and Culture .....	7
2.2 The Wulgurukaba People’s governance .....	7
<b>3. Magnetic Island National Park.....</b>	<b>10</b>
3.1 Park overview .....	10
3.2 World Heritage.....	11
<b>4. Key values .....</b>	<b>13</b>
4.1 Wulgurukaba cultural sites and places .....	17
4.2 Fort Complex Magnetic Island.....	19
4.3 Vine thickets and forests on dunes and alluvial plains .....	21
4.4 Hoop pine communities .....	24
4.5 Mixed low woodland to shrubland .....	26
4.6 Coastal communities – wetlands, fringing woodlands and <i>aguny</i> (mangroves) .....	28
4.7 The Magnetic Island National Park visitor experience .....	30
<b>5. Management direction .....</b>	<b>32</b>
5.1 Wulgurukaba partnership and cultural heritage management .....	33
5.2 <i>Burhi</i> (fire) management.....	34
5.3 Pest management .....	35
5.4 Natural values management.....	36
5.5 Post-contact cultural heritage management.....	37
5.6 Visitor management.....	38
5.7 Community, partnerships and other interests.....	39
5.8 Field management capability.....	40
5.9 Operational planning and management support .....	41
<b>6. References .....</b>	<b>42</b>
<b>Appendix 1. Glossary.....</b>	<b>43</b>

# 1. Introduction

The Department of Environment, Science, and Innovation recognises, respects and values First Nations peoples and cultures. We recognise that First Nations peoples have rights and interests in the country on which we work. We are committed to progressing self-determination by working with First Nations peoples to incorporate their priorities and perspectives in decision-making and operations.

The DESI *Gurra Gurra Framework 2020–2026* prioritises and accelerates this commitment. Throughout its development, it has considered what has worked well and what can be done better to improve the way we do business into the future.

The Queensland Parks and Wildlife Service works with First Nations peoples to ensure the protection of Country and culture. We pay our respects to all peoples, and to the Elders past, present and future, for the land and sea on which we work, live and walk.

## 1.1 Approach to best practice management

Queensland's parks, forests and reserves are places we want to protect for future enjoyment and wellbeing. What makes these places special are the presence and diversity of natural, cultural, social and economic values. These areas experience natural cycles—they live and breathe—and therefore our management needs to be dynamic too. The Queensland Parks and Wildlife Service and Partnerships (QPWS&P) applies a contemporary management process that is based on international best practice and targets management towards the most important features of each park: their **key values**.

The **Values-Based Management Framework** (VBMF) is an **adaptive management** cycle that incorporates planning, prioritising, doing, monitoring, evaluating and reporting into all areas of our business. This enables the agency to be more flexible and proactive and to improve management effectiveness over time. We want to keep our parks, forests and reserves healthy by:

- managing and protecting the things that matter most—our key values
- strategically directing management effort towards priorities
- delivering our **custodial obligations** as a land manager
- setting a **level of service** for all parks, forests and reserves
- building systems that support decision-making for adaptive management
- building support for what we do through accountability and transparency
- striving for improvement through structured learning and doing.

As a land manager, QPWS has a custodial obligation to ensure our estate is managed to provide appropriate and safe access, protect life and property, be a good neighbour and work cooperatively with partners across the landscape. The agency does this as part of setting levels of service for each park. Levels of service is a management standard that considers an area's values, **threatening processes**, custodial obligations, risks and overall management complexity.

By assessing an area's key values and levels of service, QPWS, in partnership with the Wulgurukaba People, can prioritise management efforts, balancing the importance of values and **threats** with our custodial obligations. Each year, the Wulgurukaba People will work with QPWS in tracking work programs, monitoring the condition of values and evaluating our performance across all aspects of management. The evaluation process documents how efficiently and effectively we are working toward achieving the objectives we set for managing parks, forests and reserves, and how the condition of key values is changing in response to our management efforts. This evaluation supports transparent and accountable reporting, enabling us to continuously improve park management and demonstrate outcomes to the community.

Figure 1 illustrates phases of the VBMF cycle for management planning. A glossary of the key concepts (in **bold**) used throughout the document is listed in Appendix 2.

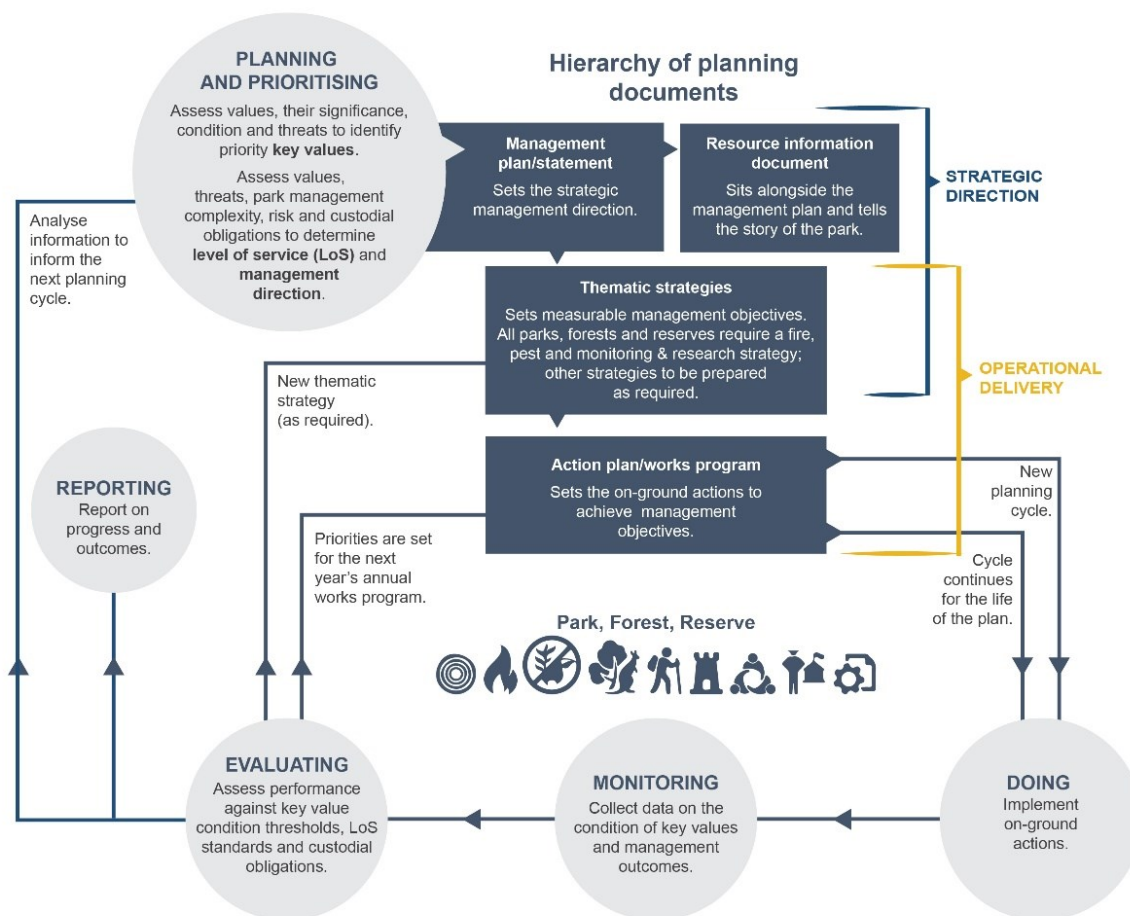


Figure 1. Phases of the VBMF cycle for planning and the hierarchy of planning documents

## 1.2 Management planning

This management statement was developed through a process of research, assessment and consultation to establish priorities and set **strategic management direction** for the park. It is a legislative requirement under the *Nature Conservation Act 1992* (Qld) (NCA). The planning area also includes places inscribed on the UNESCO World Heritage List. Management of a World Heritage property is in accordance with Australia’s obligations as signatory to the World Heritage Convention through the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). Also relevant is the *Great Barrier Reef Marine Park Act 1975* (Cth).

It has been prepared in keeping with the legislation’s management principles, supporting regulations, government policies and procedures, and international agreements. Planning for the area is brought together and communicated through a number of planning documents:

- The management statement provides the high-level strategic direction for managing an area’s key values, levels of service and custodial obligations. Management statements are statutory documents and are generally reviewed every 10 years.
- World Heritage specific planning documents set out any special requirements for managing the natural and cultural attributes within the park that are of international significance (also known as Outstanding Universal Value).
- Resource information documents support management plans and statements and provide a compendium of park information that tells the story of the park. These documents accompany management plans and management statements, providing contextual information. They support information provided in the plan but do not provide **management direction**.

- Thematic strategies provide specific objectives to achieve the strategic management directions identified in management plans and statements. While all parks and forests require a fire strategy, pest strategy and a monitoring & research strategy, others are developed based on a protected area's management requirements and priorities. Thematic strategies are generally reviewed every three to five years to enable adaptive management.
- Action plans outline the work program for delivering on-ground actions.

Further information on the VBMF, copies of management plans/statements and resource information documents are available on the department's website at [www.des.qld.gov.au](http://www.des.qld.gov.au).

## 1.3 Management statement and thematic strategies

The *Magnetic Island National Park Management Statement* provides the strategic management direction for managing its keys values (Section 4) and meeting our custodial obligations across eight **management themes** (Section 5). The statement is supported by the *Magnetic Island National Park Resource Information* document, a compendium of park information that tells the story of the park. The strategic management direction set out in this management statement links to a set of thematic strategies that detail management objectives, providing the connection between high-level strategies and on-ground operations. The complexity of a park's values and custodial obligations determine the requirements for specific strategies. Magnetic Island National Park will have six thematic strategies:

- Fire
- Pest
- Monitoring and research
- Visitor
- Post-contact cultural heritage
- Magnetic Island National Park—Wulgurukaba People, Yunbenun Country and culture.

## 2. The Wulgurukaba People

*In Our Wulgurukaba language, Yunbenun is Magnetic Island. Our Country is very important to us as part of our wider homelands. This island and coastline are rich in natural resources and are Culturally and Spiritually significant to us. Our Ancestors lived here and Our Connection to Culture and Country remain strong. As custodians, we are committed to looking after our Country. We ask you to do the same.*

Yunbenun Advisory Group 2023

### 2.1 Wulgurukaba People, Yunbenun Country and Culture

The Aboriginal Traditional Owners of Yunbenun are the Wulgurukaba People, the 'canoe people', who have lived on the island and nearby mainland for thousands of years. Shell middens, stone tools and art sites are some of the physical reminders of their strong connection with the island. The Wulgurukaba People have stories, such as the Big Carpet Snake (Gabul) story, that link Yunbenun (Magnetic Island) and Dhanu mira (Palm islands) and the mainland, and tell the creation of this landscape during the Dreamtime. Wulgurukaba People have multiple walking paths across Yunbenun Country for resources.

The Wulgurukaba People were able to maintain their traditional lifestyle until the mid-1890s when the Townsville port was established. As more European people moved into the area, the Wulgurukaba People were forced to move off their traditional lands, and confrontations with settlers, loss of traditional food sources and disease took their toll. They remained on Yunbenun until the 1920s and 30s, but were forcibly removed from their Country to areas across Queensland. A small group of Wulgurukaba People remain on or have returned to the island.

Yunbenun and the surrounding waters' natural values are traditionally of great cultural significance to the Wulgurukaba People, and continue to be important sources of food, medicines and material resources.

### 2.2 The Wulgurukaba People's governance

Wulgurukaba Yunbenun Aboriginal Corporation (WYAC) and Wulgurukaba Aboriginal Corporation (WAC) represent the Wulgurukaba People. An Indigenous Land Use Agreement (ILUA) was accredited in 2009 and facilitated land transfers to national park, conservation park (protected areas under the NCA) and Aboriginal freehold. The WYAC is legally responsible for implementing the ILUA.

The Yunbenun Advisory Group (YAG), with members from WYAC and WAC, was established in 2020 to develop a partnership between the Wulgurukaba People and QPWS, with the aim of improving the management of protected areas within Yunbenun and the surrounding Sea Country within the Great Barrier Reef Marine Park (GBRMP). The YAG is also working closely with a range of stakeholders to protect the island in a whole of Yunbenun Country approach.

QPWS and the Directors from WYAC and WAC meet annually. QPWS and YAG meet on a more regular basis to discuss and progress protected area management.

The *Magnetic Island National Park Management Statement* will provide the framework for shared management of the protected areas within Yunbenun by QPWS and the Wulgurukaba People. It builds on the provisions for cooperative management agreed to in the *2022 Memorandum of Understanding* to strengthen the partnership between QPWS and the Wulgurukaba People of Yunbenun. Cooperative management will include a greater role for Traditional Owners in decision-making for the protected areas within Yunbenun, as well as increased employment opportunities for Wulgurukaba People in protected area management (YAG Planning working group).



Figure 2. Directors from WYAC, WAC and family and QPWS staff on Yunbenun – Magnetic Island © DESI



A key demonstration of the partnership between QPWS and the Wulgurukaba People of Yunbenun is the formation of the Wulgurukaba Yunbenun Land and Sea Ranger Program. The badge for the Yunbenun Land and Sea Rangers was developed by YAG, Wulgurukaba Land and Sea Rangers and QPWS. It signifies acknowledgement and representation of the Wulgurukaba People looking after Land and Sea Country.

### Wulgurukaba Gabul Creation Story\*

The main creation story for this area describes the journey of Gabul. The Gabul story connects Yunbenun to Wulgurukaba Country on the mainland, particularly through the Ross River, and to other Aboriginal groups to the north, including the Manbarra, the custodians of the Palm Island group of islands.

According to the Dreaming, Gabul was a giant carpet python who carved the landscape while travelling from the Herbert River out to sea, forming the Hinchinbrook Channel and Palm Island group before coming to rest at Yunbenun. Gabul rested his head at Bremner Point before making his way across the water, forming the Ross River on his way into the mountains.

*\*There are different versions of the Gabul story, this is just one representation.*



Wulgurukaba language is an important part of the continuing connection. Table 1 provides some words that are important for Yunbenun Country. The utilisation of these words and language should be respected and are not used without the Wulgurukaba People's permission.

**Table 1. Wulgurukaba language**

Wulgurukaba word	Meaning
Gubul	echidna
Mangara	large rock-wallaby
Gabul	carpet snake
Bingali	death adder
Bargala	cockatoo
Gagugu	kookaburra
Buramu, gulambira	butterfly
Garwun	green ant
Gumu	mosquito
Nirbany	frog
Wubuw ubu	the cry of the frog
Naguba	Burdekin plum
Gawru	freshwater lily/lagoon
Aguny	mangrove
Yamun	dugong
Manggulanga	beach
Dugaru	whale
Burhi ( <i>boorhi</i> )	fire
Murdaburhi	bushfire
Gunabura, gundimina, guyb	burn
Yamba	camp
Guya	fish
Yida	bird
Mudhuun	crabs
Bunga	creek
Dhaga, gulu	food
Burungar	salt pans
Umbumbu	cockles
Gumunbaygan	oysters
Bamuy	mussels
Yangugan	saltwater turtle

(Donohue 2007)

## 3. Magnetic Island National Park

### 3.1 Park overview

Magnetic Island National Park is located on Yunbenun about 8 kilometres north-east of Townsville. Yunbenun's surrounding waters are within the Great Barrier Reef World Heritage Area (GBRWHA). The island lies within the state electorate of Herbert and the local government area of Townsville City Council (Map 1).

Yunbenun contains very high scenic coastal landscape values and supports a high diversity of ecosystems and plant and animal species of conservation significance. It also has a rich cultural heritage that contains significant Indigenous and shared-history cultural heritage places. Yunbenun is unique as it provides an opportunity for a large number of visitors and residents to undertake recreation in a natural environment in an otherwise urban setting.

Yunbenun is the largest continental island within the Northern Brigalow Belt Bioregion, and the seventh largest within the GBRWHA. It is likely that it represents the largest, most diverse assemblage of island flora in the dry tropics region of the Great Barrier Reef (GBR) and contributes to the processes of dispersal, colonisation and establishment of flora communities within the GBRWHA as a whole (Department of Sustainability, Environment, Water, Population and Communities 2010).

Yunbenun is approximately 5,184 hectares (ha) in size. Just over three-quarters of the island is protected area:

- Magnetic Island National Park: 3,943.77 ha
- Horseshoe Bay Lagoon Conservation Park: 4.46 ha
- Bolger Bay Conservation Park: 16.17 ha
- Magnetic Island Conservation Park 1: 67.85 ha
- Magnetic Island Conservation Park 2: 13.67 ha.

The protected areas will be identified as 'Magnetic Island National Park' and 'the park' throughout this document. There is also a network of nature refuges in Horseshoe Bay and Bolger Bay that are managed in accordance with the NCA but are not covered under this management statement. These nature refuges are managed under the Private Protected Area Program.

Bolger Bay Conservation Park is managed under trusteeship by Magnetic Island Nature Care Association Inc through the NCA.

Magnetic Island Conservation Park 1 and Magnetic Island Conservation Park 2 are managed under trusteeship by WYAC through the NCA.

Elevations on Yunbenun reach 495 metres, making it one of the highest islands within the GBRWHA. Volcanic rocks generally form low domed hills with skeletal soils. Granitic rocks form ranges and low hills with rocky outcrops. Weathered dykes form valleys and saddles within the granitic landscape. Other landforms include perched valleys, captured watercourses, boulder screes and talus slopes. The



Map 1. Location map Magnetic Island National Park

island also has a wide range of more recent unconsolidated alluvial and aeolian geologies, including wetlands, different aged dune systems and beach rock (Kenchington and Hegerl 2005).

Magnetic Island National Park is highly accessible and provides the opportunity for a large number of visitors and residents to view spectacular scenic landscapes, including boulder-strewn headlands, hoop pines, sandy beaches and eucalypt woodlands. The Fort Complex is the most popular visitor location to take in sweeping views of the island and surrounding marine environment. As one of the higher points on the island, the Forts are used by service providers to position infrastructure such as communications antennae.

Yunbenun's protected area estate has a high level of human interaction along the urban interface, with a permanent residential population of approximately 2,500 (Australian Bureau of Statistics 2022), visiting tourists staying in accommodation and day trippers.

Yunbenun has eight catchments: Rollingstone Bay; Five Beach Bay; Horseshoe Bay (Endeavour Creek and Gorge Creek); Radical Bay, Arcadia (Petersen Creek); Nelly Bay (Gustav Creek); Picnic Bay (Butler Creek); and West Coast (Ned Lee Creek, Duck Creek, Chinaman Gully and Retreat Creek). The lower reaches of some catchments are heavily impacted. Horseshoe and Picnic bays are rated heavily impacted, and Gustav Creek is slightly impacted (Connell Wagner 2008). These important catchments flow directly into the GBR.

The protected areas are mostly covered with mixed open eucalypt woodland. Significant semi-evergreen vine thicket grows in sheltered gullies and coastal areas, with 26 regional ecosystem vegetation communities represented. Feature trees including hoop pine *Araucaria cunninghamii* are present on the headlands, with native kapoks *Cochlospermum gillivraei* and Townsville wattle *Acacia leptostachya* producing a prominent seasonal display of yellow in the landscape.

The island's coast boasts 19 bays, with sandy beaches, fringing reefs, *aguny* (mangrove) communities and seagrass beds.

Over 80 native plants and 250 native animals have been recorded from Magnetic Island National Park protected area estate (Queensland Government 2019). Thirty-six species have conservation significance under various legislation.

Numerous indirect impacts threaten the resilience of the GBR and coral reefs world-wide. Climate change (and associated rising temperatures causing coral bleaching, increased ocean acidification, rising sea levels, and increased frequency and intensity of severe storms physically damaging the reefs), Crown of Thorns outbreaks and pollution events all threaten the resilience and integrity of the GBR. The management of these threats is not within the scope of the QPWS VBMF. The Great Barrier Reef Marine Park Authority leads the management and protection of the GBR on a national, regional and local scale.



**Figure 3. Magnetic Island National Park provides significant habitat for koalas © Tourism and Events Queensland/Khy Orchard**

## 3.2 World Heritage

Yunbenun and the surrounding marine waters are included in the internationally significant GBRWHA and are protected within the GBRMP. The resources of the seasonal freshwater creeks and the sea have sustained the Wulgurukaba People for thousands of years.

The World Heritage area extends from the top of Cape York in north-east Australia to just north of Bundaberg, and from the low water mark on the Queensland coast to the outer boundary of the marine park, which is beyond the edge of the continental shelf (Australian Government 2022). As the world’s most extensive coral reef ecosystem, the GBR is a globally outstanding and significant entity. The GBR was included on the National Heritage List on 21 May 2007.



Figure 4. The surrounding reefs of Yunbenun protect significant species © Alex Gorman

The listing criteria for the GBRWHA are noted below in Figure 5.

UNESCO World Heritage Convention criteria		Associated key values
Criterion 7	The GBR is of superlative natural beauty above and below the water and provides some of the most spectacular scenery on earth. It is one of a few living structures visible from space, appearing as a complex string of reefal structures along Australia’s northeast coast.	<ul style="list-style-type: none"> <li>Coastal communities – wetlands, fringing woodlands and agony (mangroves)</li> </ul>
Criterion 8	The GBR, extending 2,000 kilometres along Queensland’s coast, is a globally outstanding example of an ecosystem that has evolved over millennia. The area has been exposed and flooded by at least four glacial and interglacial cycles, and over the past 15,000 years reefs have grown on the continental shelf.	<ul style="list-style-type: none"> <li>Vine thickets and forests on dunes and alluvial plains</li> <li>Hoop pine communities</li> <li>Mixed low woodland to shrubland</li> <li>Coastal communities – wetlands, fringing woodlands and agony (mangroves)</li> </ul>
Criterion 9	The globally significant diversity of reef and island morphologies reflects ongoing geomorphic, oceanographic and environmental processes. The complex cross-shelf, longshore and vertical connectivity is influenced by dynamic oceanic currents and ongoing ecological processes such as upwellings, larval dispersal and migration.	<ul style="list-style-type: none"> <li>Vine thickets and forests on dunes and alluvial plains</li> <li>Hoop pine communities</li> <li>Mixed low woodland to shrubland</li> <li>Coastal communities – wetlands, fringing woodlands and agony (mangroves)</li> </ul>
Criterion 10	The enormous size and diversity of the GBR means it is one of the richest and most complex natural ecosystems on earth, and one of the most significant for biodiversity conservation. The amazing diversity supports tens of thousands of marine and terrestrial species, many of which are of global conservation significance.	<ul style="list-style-type: none"> <li>Vine thickets and forests on dunes and alluvial plains</li> <li>Hoop pine communities</li> <li>Mixed low woodland to shrubland</li> <li>Coastal communities – wetlands, fringing woodlands and agony (mangroves)</li> </ul>

Figure 5. UNESCO World Heritage Convention criteria for the GBRWHA

# 4. Key values

All parks, forests and reserves have an array of natural, cultural, social and economic values that are important and contribute to the state’s comprehensive and representative protected area and forest estate. The VBMF supports a process for identifying and protecting the most important values, the key values, and this directs the allocation of resources.

In this section, a **key value statement** is provided for each key value, identifying the current **condition and trend**, and a desired condition. The main threatening processes are identified and rated from high to low. A strategic management direction provides a broad strategy to address the threatening process to achieve the **desired outcome** over time. Each strategic management direction is prioritised according to the need for action to prevent further decline, stabilise current condition, or restore and enhance the value (refer to **priority rating** in Appendix 1). The condition of all key values is (or will be) assessed through regular **health checks** or other monitoring. The monitoring and research strategy outlines opportunities and needs for scientific monitoring and research programs that will enhance our knowledge. Any change to a key value’s condition will be identified through health checks and monitoring, enabling QPWS to act quickly, applying best practice adaptive management.

## Summary of key values:

A summary of the key values for Magnetic Island National Park is detailed below. The location of each key value is shown in **Maps 2 and 3**. **Figure 6** provides a key to interpreting the condition and trend icons used in this section.

	Current condition	Confidence in condition assessment	Current trend	Confidence in trend assessment	Desired condition
4.1 Wulgurukaba cultural sites and places					
4.2 Fort Complex, Magnetic Island					
4.3 Vine thickets and forests on dunes and alluvial plains					
4.4 Hoop pine communities					
4.5 Mixed low woodland to shrubland					
4.6 Coastal communities – wetlands, fringing woodlands and <i>agony</i> (mangroves)					
4.7 Magnetic Island National Park visitor experience					












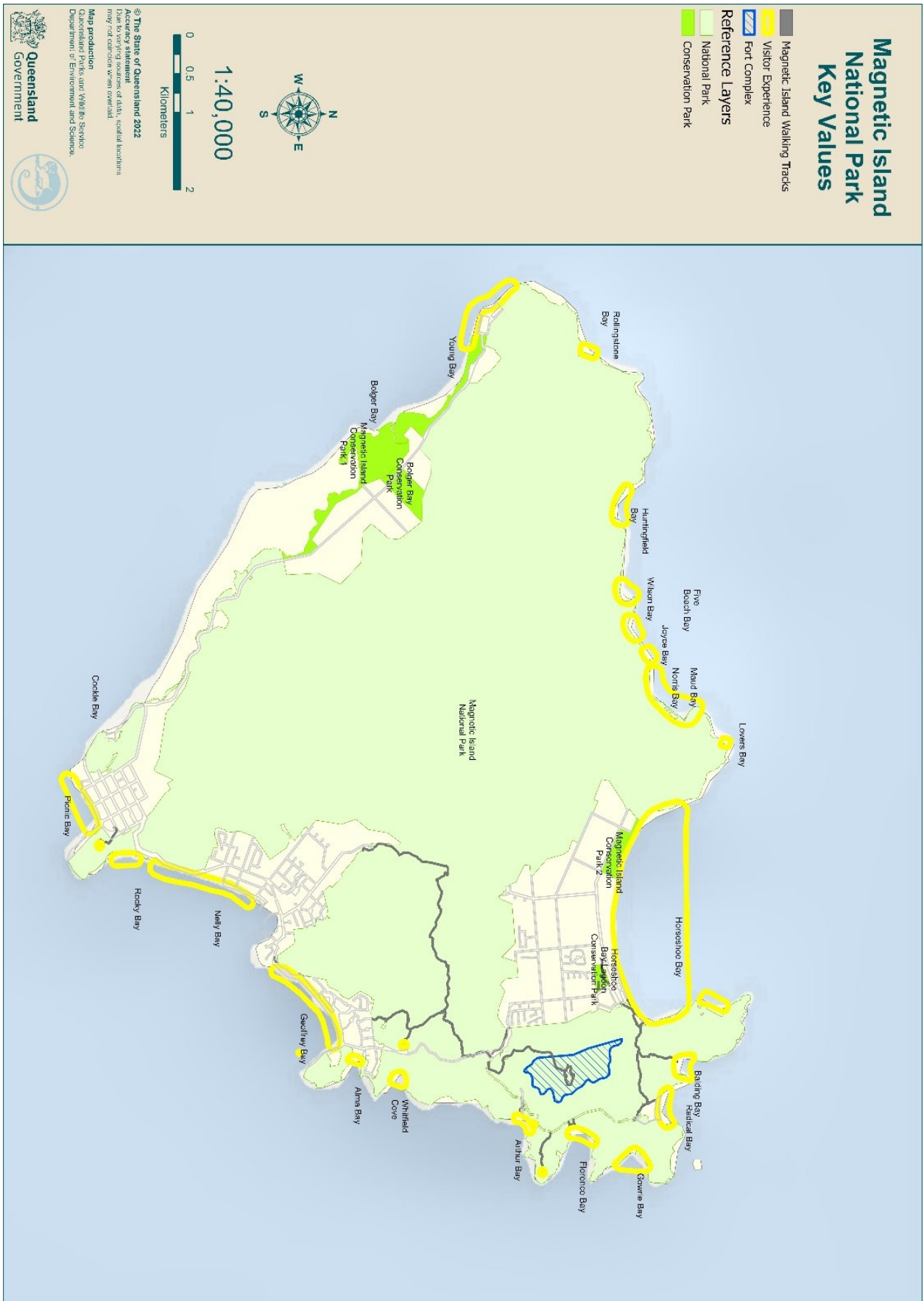
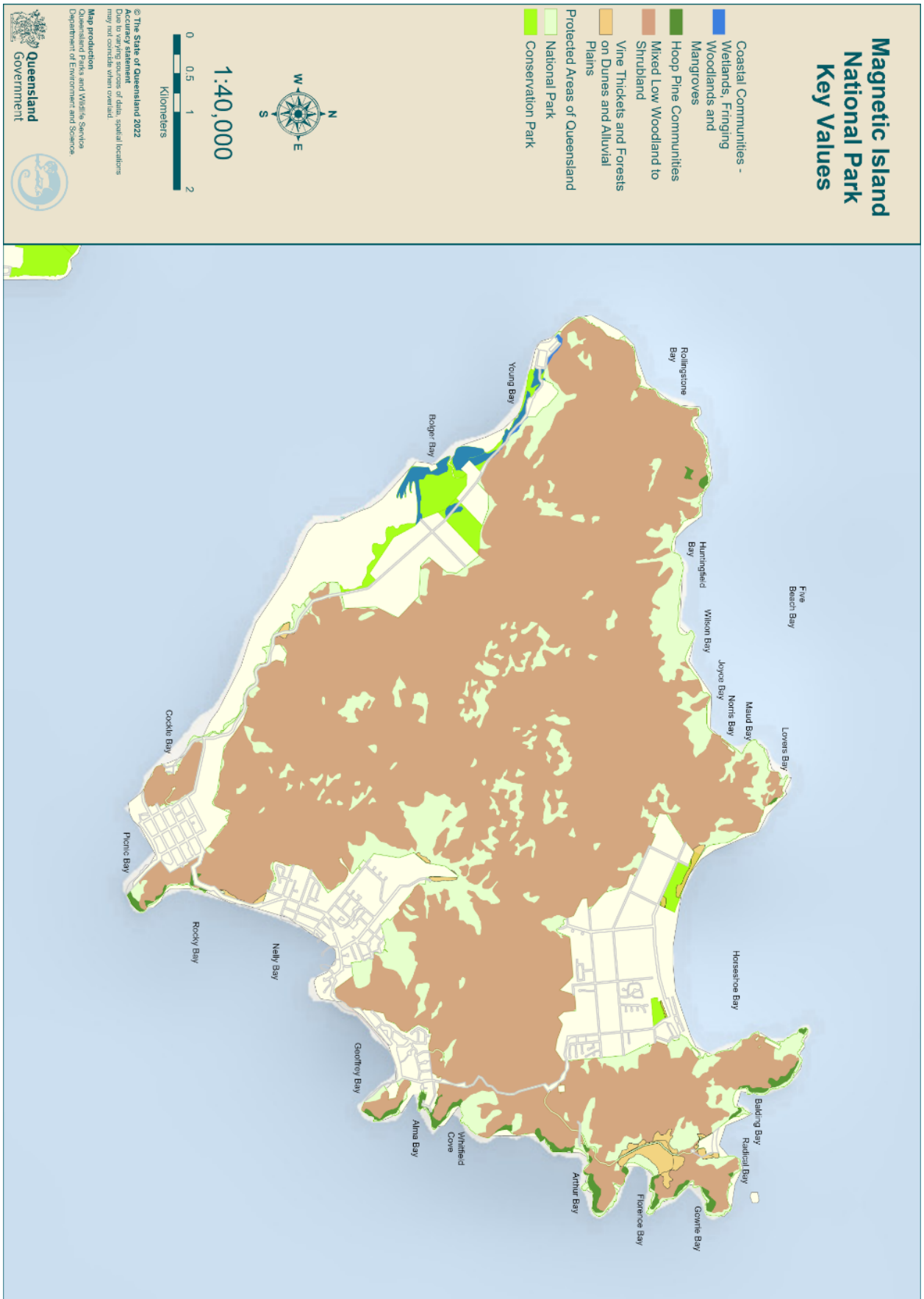
<p><b>Condition of key value</b></p>	<p><b>Good</b>                        The value is in good condition and is likely to be maintained for the foreseeable future, provided that current measures are maintained</p>	<p><b>Good with some concern</b>                        The value is likely to be maintained over the long term with minor additional conservation measures to address existing concerns</p>	<p><b>Significant concern</b>                        The value is threatened by a number of current and/or potential threats. Significant additional conservation measures are required to preserve the value over the medium to long term</p>	<p><b>Critical</b>                        The value is severely threatened. Urgent additional large-scale conservation measures are required, or the value may be lost</p>
<p><b>Trend rating of condition</b></p>	<p><b>Improving</b>  </p>	<p><b>Stable</b>  </p>	<p><b>Deteriorating</b>  </p>	<p><b>No consistent trend</b>  </p>
<p><b>Confidence in assessment</b></p>	<p><b>Inferred</b>  </p>	<p><b>Limited</b>  </p>	<p><b>Adequate</b>  </p>	

Figure 6: Key to condition, trend and confidence icons



Map 2. Fort Complex and visitor experience key values



Map 3. Magnetic Island National Park natural key values



## 4.1 Wulgurukaba cultural sites and places

### Key value statement

Description		Current condition	Current trend	Desired condition
Wulgurukaba People’s tangible and spiritual connection to cultural sites and places	Condition and trend			
	Assessment confidence	Inferred 	Inferred 	



The Wulgurukaba People have a spiritual, physical, social and cultural connection to their land, from the very southern boundaries of the wet tropics into the dry tropic regions of northern Queensland. This continuing cultural connection has existed for many thousands of years. Traditional practices continue through generations through ceremonies and access to Yunbenun Country. Old camp sites, painting sites, shell middens and burial sites are across the island and are testament to the long connection to the island.

Figure 7. Shield painting in Magnetic Island National Park © DESI

### Threats

#### Loss of connection to Yunbenun Country:

- Some Wulgurukaba language was lost before it was properly documented; as a result, much of the language is fragmented (Donohue 2007).
- Wulgurukaba People’s connection to Yunbenun Country was changed from the impact of non-Indigenous settlement.
- The lack of knowledge and baseline date of Wulgurukaba People’s cultural values, sites and places.
- The lack of coordinated management and monitoring of cultural data, sites and places.

**Threat rating: Very high**

**Loss of access to Yunbenun Country.** Wulgurukaba People have never lost their connection to Country, but rather have lost their access to Yunbenun Country. **Threat rating: Very high**

**Loss of management of Yunbenun Country:** Wulgurukaba People need to be involved and to have a say on how Magnetic Island National Park is managed. Wulgurukaba People want to ensure the condition of Magnetic Island National Park is maintained by being on Yunbenun Country and involved in its management. This will allow Wulgurukaba People to build capacity, develop commercial opportunities and improve the health of their people and Yunbenun Country. **Threat rating: High**

**Invasive and other problematic species, genes and diseases:** Pest species may have an impact on Wulgurukaba Culture—both tangible and intangible values. **Threat rating: High**

**Human intrusions and disturbance:** Human impacts, both legal and illegal, may have an impact on Wulgurukaba Culture—both tangible and intangible values. This includes the intentional and unintentional taking of or interfering with Wulgurukaba natural and cultural resources within Magnetic Island National Park. Inappropriate access, behaviour and lack of cultural knowledge can lead to human impacts on Wulgurukaba People’s cultural values, from physical damage of sites to the removal of tangible values. **Threat rating: Very high**

**Residential and commercial development:** Changes to land tenure may impact Wulgurukaba People’s access to and management of Yunbenun Country. **Threat rating: High**


**Severe weather and climate change:** Severe weather, i.e. cyclones, storms and climate change, may have an impact on Wulgurukaba Culture—both tangible and intangible values. **Threat rating: High**

**Bushfire: *Murdaburhi* (bushfires) and planned burns can cause irreparable damage to cultural values. **Threat rating: High****

**Tourism and recreation development:** Inappropriate development and encroachment on the protected area can have an adverse effect on cultural sites. **Threat rating: Medium**

**Natural deterioration:** Severe weathering and natural growth, i.e. fungi, moss, can adversely affect cultural sites. **Threat rating: Medium**

**Desired outcomes and strategic management directions**

Desired outcomes		
	<p>The Wulgurukaba People will continue to partner with QPWS to protect their tangible cultural values by improved co-management, increased data management capability and improved capacity.</p> <p>The condition of the Wulgurukaba People’s tangible and intangible cultural values will be developed to ‘good’ by building a mutually respectful and trusting partnership between the Wulgurukaba People and QPWS.</p>	
Threatening processes	Strategic management directions	Priority
<b>Loss of connection to Country</b>	Improve the knowledge of sites through undertaking surveys, recording of cultural heritage sites and places, and establishing an effective database.	1
	Improve Wulgurukaba People’s capacity and resources in partnership with QPWS.	1
	Develop the use of language and traditional names in QPWS interpretation, signage and naming of sites.	1
	Increase management of cultural site data through the maintenance of a consolidated database and develop a monitoring program with Wulgurukaba People’s partners.	1
<b>Loss of access to Yunbenun Country</b>	Continue to work with QPWS to improve the Wulgurukaba People’s access and enhanced connection to Yunbenun Country.	1
<b>Loss of management of Yunbenun Country</b>	Develop the Wulgurukaba People to generate ecologically, culturally and socially sustainable commercial opportunities.	1
<b>Human impacts from access and inappropriate behaviour</b>	Increase the protection of the Wulgurukaba People’s cultural sites and their cultural values by increasing education to all stakeholders.	1
	Develop a Wulgurukaba People’s cultural heritage induction program for QPWS staff and contractors.	1
<b>Loss of management of Yunbenun Country</b>	Improve knowledge and build management capacity by identifying employment, contracting and training opportunities for Wulgurukaba People within QPWS, including the Yunbenun Rangers.	1
<b><i>Murdaburhi</i> (bushfire)</b>	Protect the Wulgurukaba People’s cultural sites through the use of traditional and contemporary <i>burhi</i> (fire) practices in park through <i>burhi</i> (fire) management program.	1
<b>Urban development</b>	Ensure the <i>Aboriginal Cultural Heritage Act 2003</i> is adhered to by all stakeholders.	1
<b>Pest animals and weeds</b>	Co-design pest and fire strategies with QPWS to reduce the impacts of pest animals and weeds on the Wulgurukaba People’s cultural sites.	1
<b>Severe weather and climate change</b>	Co-design a First Nations Cultural Heritage Strategy with QPWS that includes monitoring severe weather and climate change impacts, and weathering on cultural sites, and implement appropriate management actions to minimise impacts.	1

See Appendix 1. Glossary for priority rating definitions.

## 4.2 Fort Complex Magnetic Island

### Key value statement

Applies to Magnetic Island National Park

Description		Current condition	Current trend	Desired condition
Queensland heritage listed World War II Fort Complex	Condition and trend	●●●●	↔	●●●●
	Assessment confidence	Adequate ●	Adequate ●	



Figure 8. The Fort Complex © Caroline Grayson, Queensland Government

The Magnetic Island (Fort Complex) was listed in the Queensland Heritage Register on 21 October 1992 and is protected as a state heritage place under the *Queensland Heritage Act 1992*, place reference number 600876. The complex satisfies three heritage criteria:

**Criterion A – The place is important in demonstrating the evolution or pattern of Queensland’s history.** This is a significant site which highlights the role of Townsville and the region in the Allied struggle to protect Australia from the advancing Japanese forces during the crucial war years of 1942–43.

**Criterion B – The place demonstrates rare, uncommon or endangered aspects of Queensland’s cultural heritage.** Its significance is further highlighted because this site, together with those at Kissing Point, Townsville and on Cape Marlow at Pallarenda, is a rare wartime fortification of unique value.

**Criterion F – The place is important in demonstrating a high degree of creative or technical achievement at a particular period.** Its construction on a rugged headland and the installation of the guns were wartime engineering achievements of some magnitude.

The Fort complex is a World War II coastal fortification constructed in 1942–43. At this point in the war, Townsville had the busiest port in Australia; was the major supply depot for Allied troops in the southeast Pacific and the staging post for troops heading north into the warzone; and had already been bombed by Japanese forces. Considered at imminent risk of further attack, the Main Roads Commission constructed the Fort Complex on a remote, rugged headland overlooking Florence Bay.

Armed with United States Army 155 mm M1917A1 field artillery pieces on circular Panama mounts, the Fort Complex included command posts, searchlight, ammunition stores, radar station, signal station, direction finders, accommodation huts, administrative offices, workshop, kitchen and mess, and ablutions buildings, some of which were covered with artificial rock and camouflage. It was constructed quickly by a small crew that had no specialist skills. With its gun emplacements anchored into the granite boulders, it is considered a wartime engineering feat. The fort operated through to the end of the war in 1945, when most of the equipment and installations were removed. Six main fortifications remain in situ: the command post, signal station, ammunition store, searchlight and two gun emplacements.

The Fort Complex is one of eight known 155 mm coastal artillery batteries constructed in Australia during World War II (six of which were in Queensland), and is possibly the most intact example remaining. It is a significant site that highlights the role of Townsville and the region in the Allied struggle to protect Australia from advancing Japanese forces.

Despite the discrimination against Indigenous Australians in the defence forces, thousands of Aboriginal people served in the Australian Defence Force in the First World War and the Second World War. These sites are significant to the Wulgurukaba People and other Indigenous Australians as a reminder of their service to Australia.

In addition to its heritage values, the Fort Complex is the most visited site within the national park, offering sweeping views over Yunbenun, the mainland and surrounding GBR. It is also the most popular location on the island to spot koalas *Phascolarctos cinereus* in the wild.

Coastal sheath-tail bats *Taphozous australis*, listed as near threatened in Queensland (NCA), roost in the ammunition stores buildings.


Although not listed in the Queensland Heritage Register, there are several other sites containing defence equipment across the island, including the searchlight tower located in the national park on the headland between Florence and Arthur bays.

### Threats

**Primary threat:** Aesthetic and historic values are affected by vandalism (graffiti), mainly in vertical structures, particularly where people can't be seen. Not an issue on slab remnants. **Threat rating: Medium**

**Secondary threat:** Structural disintegration can and has occurred when the internal reinforcing steel bars are exposed to water and air. This exposure deteriorates the bars, causing them to expand and leading to spalling of the concrete. **Threat rating: Very high**

### Desired outcomes and strategic management directions

Desired outcome		
Threatening processes	Strategic management directions	Priority
	The condition of the Fort Complex will be maintained as 'good' by appropriate management of visitor impacts and natural deterioration.	
Visitor impacts	Preserve the Fort Complex structures from the effects of visitor behaviours such as graffiti and other detractive activities.	3
Natural deterioration	Monitor the structural integrity of the signal station, gun emplacements, ammunition store and artillery command post.	2
	Enhance visitor safety at the Fort Complex.	3
	Preserve the condition of the Fort Complex structures.	4

See Appendix 1. Glossary for priority rating definitions.

## 4.3 Vine thickets and forests on dunes and alluvial plains

### Key value statement

Applies to Magnetic Island National Park, Magnetic Island conservation parks 1 & 2, Horseshoe Bay Lagoon Conservation Park

Description		Current condition	Current trend	Desired condition
Semi-evergreen vine thickets (softwood scrub) and microphyll vine forest on dunes (beach scrub)	Condition and trend			
	Assessment confidence	Limited 	Limited 	

The vine thickets and forests on dunes and alluvial plains are significant areas to the Wulgurukaba People (**Figure 9**). The vegetation communities contain plant and wildlife species that are important resources. For example, the casuarina *Casuarina equisetifolia* branches in the beach scrubs were important tools to fend away *gumu* (mosquitoes), and parts of the tree were used for medicine. The beach bean *Canavalia rosea* grows on dunes and was used by the Wulgurukaba People by crushing leaves to stun fish and treat jellyfish stings.

#### Semi-evergreen vine thickets (softwood scrub)

The park conserves areas of endangered ‘semi-evergreen vine thickets on alluvial plains’ (Regional ecosystem 11.3.1x1 and regional ecosystem 11.12.4). an ecosystem that is restricted to small pockets in sheltered gullies including Gustav Greek and other gullies sloping into Nelly Bay and behind Bolger Bay. These communities also occur on hills around the island and among the boulders. This ecosystem has been mapped within the national park (13.1 ha) and conservation parks (approximately 5 ha). The low extent in protected areas across the state makes these small patches ecologically important.

Conservation of these small patches is important for maintaining the biodiversity of the ecosystem on the island. The semi-evergreen vine thickets provide significant habitat for a variety of species and are important areas for refuge. The vulnerable *Croton magneticus* is a small shrub that is a restricted plant, but is found commonly on park. There has been 100 ha of vine thicket mapped on Yunbenun, with 17.8 ha within Magnetic Island National Park, and a small (<1ha) patch within Magnetic Island Conservation Park 2, representing approximately 3% of the regional ecosystem in protected areas across Queensland. Common canopy species that occur in this community include *Canarium australianum*, *Lophostemon grandiflorus* and *Gossia bidwillii*. Common shrub species include *Eugenia reinwardtiana*, *Carissa ovata* and *Diospyros geminata*. A variety of *buramu* (butterfly) species gather within the semi-evergreen vine thickets, moving into these areas in winter when resources dry up in lower vegetation communities. Most of the area is covered by boulders, with dense leaf litter and sparse clumps of *Scleria sphacelata* (Sandercoe 1990). There are other semi-evergreen vine thicket communities that occur near the *Eucalyptus tessellaris* communities on the higher slopes, which have not been mapped correctly in the regional ecosystem mapping. These communities offer a significant refugia area and contain significant species, including helicopter trees *Gyrocarpus americanus* and little kurrajong *Brachychiton bidwillii*. They occur within protected gullies, among boulders and on talus.

#### Microphyll vine forest on dunes (beach scrub)

Microphyll vine forests on coastal dunes are commonly known as beach scrub. These communities are restricted and have a low representation rate in protected areas. The ‘of concern’ microphyll vine forest (beach scrub) (RE 11.2.3, BVG 3a) communities that occur within Magnetic Island National Park are approximately 17.5 ha. There are many varieties of microphyll vine forest communities on the island. They all occur on different aged dunes, with different species composition and structures. Horseshoe Bay contains the highest representation of the microphyll vine forests on dunes.

The canopy species include *naguba* (Burdekin plum) *Pleiogynium timorense*, *Aidia racemosa*, white kamala *Mallotus discolor*, with *Eugenia reinwardtiana* and *Fitzalania heteropetala* shrub layer. The beach scrubs include significant habitat for a frugivorous *yida* (birds), including orange-footed scrubfowl *Megapodius reinwardt*, bush stone curlew *Burhinus grallarius*, pied imperial pigeon *Ducula bicolor* and fairy gerygone *Gerygone palpebrosa*.

### Threats

**Primary threat:** Ecosystem-changing weeds displace native species. Siam weed *Chromolaena odorata* has previously occurred on the island with the potential for further occurrences. Other ecosystem changing weeds include rubber vine *Cryptostegia grandiflora*. Herbaceous weeds, including periwinkle *Catharanthus roseus* and billygoat weed *Ageratum houstonianum*, woody weeds such as lantana *Lantana camara* and high biomass grasses can promote fire at the margins of the semi-evergreen vine thickets. **Threat rating: Very high**

**Secondary threat:** Fire can burn the edges of the fire-sensitive communities, making them more susceptible to rubber vine and high biomass grass invasion. **Threat rating: Low**


**Other threat:** Introduced agile wallabies graze on the beach scrub communities and remove the native vegetation communities, promoting erosion and weed invasion. **Threat rating: High**

**Other threat:** Semi-evergreen vine thickets and forests have suffered severe fragmentation and loss of connectivity in Queensland as a result of residential and commercial development. Future development (on or off park) could cause further fragmentation of these ecosystems on the island. **Threat rating: Low**

**Other threat:** Recreational facilities and activities have the potential to cause fragmentation or impact the integrity of these ecosystems. Horseshoe Bay contains visitor impacts from trampling. **Threat rating: High**

**Other threat:** Hydrological modification on the beach scrub community is turning it from a freshwater system to a mixed saltwater system. The installed bunds are creating a system that is removing native plants, vine thickets and erosion in Horseshoe Bay Conservation Park. **Threat rating: High**

### Desired outcomes and strategic management directions

Desired outcome		
	The condition of softwood scrubs and beach scrubs will be maintained as 'good' by appropriate management of fire, pests and recreation.	
Threatening processes	Strategic management directions	Priority
<b>Pest plants</b>	Eradicate Siam weed <i>Chromolaena odorata</i> .	<b>1</b>
	Prevent any further introduction of Siam weed <i>Chromolaena odorata</i> .	<b>1</b>
	Reduce impacts of rubber vine <i>Cryptostegia grandiflora</i> and other ecosystem-changing weed species.	<b>3</b>
	Reduce impacts of periwinkle <i>Catharanthus roseus</i> and billygoat weed <i>Ageratum houstonianum</i> .	<b>3</b>
<b>Pest animals</b>	Reduce the impacts of agile wallabies on the beach scrub communities.	<b>3</b>
<b>Changed fire frequency or intensity</b>	Maintain extent and condition of semi-evergreen vine thicket by limiting fire damage on margins.	<b>5</b>
	Reduce lantana <i>Lantana camara</i> and high biomass grasses increasing intensity of hot fires on the margins.	<b>4</b>
<b>Tourism and recreational development</b>	Through consultation, minimise commercial, residential or tourism development that would cause fragmentation, degradation or loss of vegetation communities.	<b>4</b>
<b>Recreation</b>	Ensure future protected area recreational development does not cause further fragmentation, degradation or loss.	<b>4</b>

See Appendix 1. Glossary for priority rating definitions.



**Figure 9. Semi-evergreen vine thicket communities © Michael O'Neill, Queensland Government**

## 4.4 Hoop pine communities

### Key value statement

Applies to Magnetic Island National Park

Description		Current condition	Current trend	Desired condition
Hoop pine communities	Condition and trend	●●●●	↔	●●●●
	Assessment confidence	Inferred ○	Inferred ○	

The hoop pine landscapes of Yunbenun are important to the Wulgurukaba Yunbenun Country and represent ongoing connection to the Yunbenun Country with stories, painting sites and other significant sites (Figure 10). The hoop pine communities are only found in certain areas across Queensland. The ‘of concern’ hoop pine *Araucaria cunninghamii* communities (RE 11.12.12) are iconic to Yunbenun. Scattered across the rocky headlands, the tall straight trees are important for scenic value. Images of boulder strewn headlands dotted with hoop



Figure 10. Hoop pine communities on boulder strewn slopes © Caroline Grayson

pinos and surrounded by blue waters are synonymous with the park. This community has a sparse understorey compared to other Araucarian dominated ecosystems. It has been mapped within the park (35.4 ha), representing 10.5% of the regional ecosystem across Queensland.

Hoop pines provide food and habitat for a number of species including the *bargala* (red-tailed black cockatoo) *Calyptorhynchus banksia* and sulphur-crested cockatoo *Cacatua galerita*, and nesting habitat for species including whistling kite *Haliastur sphenurus* (Arcadia Coast Care 2018) and wedge-tailed eagle *Aquila audax* (J Petersen, pers comm 2023).

The hoop pines provide roosting and feeding habitat for near-threatened coastal sheath-tail bats *Taphozous australis*. These bats roost in sea caves among the boulders (known sites are at Alma Bay and Balding Bay) and forage above the canopy (and out to sea) up to 1 kilometre from their roost (Hourigan 2011). Yunbenun is home to a large colony of *mangara* (allied rock-wallabies) *Petrogale assimilis*. They can be seen moving quickly across the boulders and rocky slopes in the hoop pine habitat.


### Threats

**Primary threat:** Scorching can occur around the edges of the hoop pine communities, particularly where it occurs with spinifex. *Araucaria cunninghamii* are readily killed by fire. The key value is particularly susceptible after cyclones and drought. **Threat rating: Low**

**Secondary threat:** Pest plants establishing in hoop pine communities, increasing fire intensity and inhibiting hoop pine recruitment. Sisal hemp *Agave sisalana* can inhibit recruitment of hoop pine. **Threat rating: Low**



### Desired outcomes and strategic management directions

Desired outcome		
	The condition of hoop pine <i>Araucaria cunninghamii</i> communities on boulder-strewn slopes will be maintained as 'good' by appropriate management of fire and weeds.	
Threatening processes	Strategic management directions	Priority
<b>Changed fire frequency or intensity</b>	Maintain extent and condition of hoop pine communities on boulder-strewn slopes by limiting fire damage at hoop pine margins.	<b>4</b>
<b>Introduced weeds</b>	Prevent ecosystem-changing weeds including Sisal hemp <i>Agave sisalana</i> becoming established in hoop pine communities.	<b>5</b>

See Appendix 1. Glossary for priority rating definitions.

## 4.5 Mixed low woodland to shrubland

### Key value statement

Applies to Magnetic Island National Park and Bolger Bay Conservation Park

Description		Current condition	Current trend	Desired condition
Mixed low woodland to shrubland	Condition and trend	●●●	⊖	●●●●
	Assessment confidence	Inferred ○	Inferred ○	



Figure 11. Mixed low woodlands © Jo Petersen, Queensland Government

The mixed low woodland to shrubland makes up approximately 80% of the park’s vegetation. The number of regional ecosystem communities in this key value are presented as one large, non-fragmented, relatively undisturbed and well-functioning ecosystem. Due to their elevation and temperature, they are a significant refuge for a range of important species (G Morgan, pers comm 2022).

These communities are significant to the Wulgurukaba People. Many significant cultural sites and stories are protected within these woodlands. They are also important for a variety of resources and food that have sustained life for thousands of years.

### High altitude woodlands

The plateau and hills around Mount Cook conserve the ‘of concern’ bloodwood *Corymbia intermedia* and *Eucalyptus acmenoides* open forest, with a lower tree layer of mountain oak *Allocasuarina torulosa* and *Livistona decora* on the igneous rocks community (11.12.15) making a significant contribution to the overall conservation of this community. Due to their elevation, these are cooler communities with wetter conditions and fertile and deeper soils, similar characteristics to cloud forests with wetter conditions (G Morgan 2022). These communities have a variety of other species, including Acacia species, *wira* (sandpaper figs) *Ficus opposita*, grasstree *Xanthorrhoea johnsonii* and kangaroo grass *Themeda triandra*. The *Allocasuarina torulosa* is a significant food resource for the *bargala* (red-tailed

black cockatoos). Red-tailed black cockatoos are important signs of rain for the Wulgurukaba People. *Eucalyptus crebra*, *Corymbia erythrophloia* and *Corymbia tessellaris* (11.12.13) also occur on the plateau, covering over 50% of this key value.

### Open granite hills complex

The ‘of concern’ and semi-deciduous eucalypt woodland ecosystems (11.12.16x1, 11.12.16 and 11.12.16a; 11.12.16d) are a mixed composition that occurs on the granite, talus slopes and Julago volcanics. The ironbark communities that occur in the lower midlands support populations of koalas *Phascolarctos cinereus*. The West Point volcanic community is very important to this value due to its condition (G Morgan 2022). Koalas were introduced to the island in the 1930s to protect them from perceived threats on the mainland. Studies on the island estimate that the island supports a population of around 800 koalas.

Other species within the key value include the endangered bare-rumped sheathtail bat *Saccolaimus saccolaimus nudicluniatu*s and the vulnerable common death adder *Acanthophis antarcticus*. These vegetation communities with the granite rock are potential habitat for the vulnerable northern quoll *Dasyurus hallucatus*. Quolls were originally on the island up until the late 1960s. Populations were possibly removed from the island due to quolls being considered a pest species, and the later introduction of cats to the island.


### Threats

**Primary threat:** Introduced weeds including rubber vine *Cryptostegia grandiflora* and *Cryptostegia madagascariensis* occur on the Julago volcanics section of the key value. *Lantana camara* is an ecosystem-changing weed and occurs throughout the key value. Siam weed *Chromolaena odorata* has occurred at various locations across the key value. These weed species cause displacement of native species. **Threat rating: Very high**

**Secondary threat:** Woodlands and shrublands are particularly susceptible to bushfires after cyclones and drought. The removal of large trees in the hill communities significantly reduces habitat. Fires that are too intense and extensive will threaten the viability of the koala’s food trees, while a lack of fire may hinder recruitment of food trees. **Threat rating: Medium**

**Other threat:** Park neighbours encroaching into park tenure, creating gardens, building infrastructure, introducing weeds and clearing. This typically occurs at the urban interface. Illegal activities have also occurred deep within the park boundaries where clearing, building of infrastructure, evidence of fertiliser and weeds are found. **Threat rating: Low**

### Desired outcomes and strategic management directions

Desired outcome		
	The condition of mixed low woodland to shrubland is improved to ‘good’ by appropriate management of weeds, fire, and residential and commercial development.	
Threatening processes	Strategic management directions	Priority
<b>Introduced weeds</b>	Eradicate Siam weed <i>Chromolaena odorata</i> in mixed low woodland to shrubland.	<b>1</b>
	Reduce impacts of rubber vine <i>Cryptostegia grandiflora</i> on the Julago volcanics on mixed low woodland to shrubland.	<b>2</b>
	Reduce impacts of lantana <i>Lantana camara</i> on mixed low woodland to shrubland.	<b>3</b>
	Prevent the establishment of ecosystem-changing weeds in mixed low woodland to shrubland.	<b>3</b>
<b>Changed fire frequency or intensity</b>	Maintain extent and condition of mixed low woodland to shrubland through appropriate fire management.	<b>3</b>
<b>Residential and commercial development</b>	Minimise impacts of boundary encroachment by neighbours on the park through education and consultation.	<b>4</b>
	Minimise impacts of illegal activities by identification, rehabilitation, compliance and monitoring.	<b>4</b>

See Appendix 1. Glossary for priority rating definitions.

## 4.6 Coastal communities – wetlands, fringing woodlands and *aguny* (mangroves)

### Key value statement

Applies to Magnetic Island National Park, Magnetic Island Conservation Parks 1 & 2, Bolger Bay Conservation Park and Horseshoe Bay Lagoon Conservation Park

Description		Current condition	Current trend	Desired condition
Coastal communities – wetlands, fringing woodlands and <i>aguny</i> (mangroves)	Condition and trend	●●●	↔	●●●●
	Assessment confidence	Inferred ○	Inferred ○	



Figure 12. Coastal wetland communities © Patrick Centurino, Queensland Government

The freshwater systems have helped sustain the Wulgurukaba People. Freshwater *bunga* (creeks), tidal *aguny* (mangroves) and *burungar* (saltpans) provide *guya* (fish), shellfish, *umbumbu* (cockles), *gumunbaygan* (oysters), *mudhuun* (crabs), *bamuy* (mussels) and *yangugan* (saltwater turtles). Food is chosen according to the seasons and geographic area. These areas are also significant for cultural sites and stories of the Wulgurukaba People.

Yunbenun contains very high scenic coastal landscape values and supports a high diversity of coastal ecosystems that provide important habitat for flora, fauna and marine species. The range of ecosystems occur predominantly on the western and southern sections of the island. These communities are split into the alluvials, riparian areas and wetlands.

The alluvial country includes the poplar gums *Eucalyptus platyphylla* woodlands (11.3.35, 11.3.9) and *Melaleuca viridiflora* (11.3.12a). Bolger Bay Conservation Park specifically protects the gently sloping alluvial fans with woodlands dominated by poplar gums and bloodwood *Corymbia clarksoniana*. These alluvial communities are habitat for the single-striped delma *Delma labialis*.

The *gawru* (lagoons) in the coastal dune swales (11.2.4 and 11.3.27x1b) are listed as ‘of concern’ and the park has the largest representation of protection in Queensland. The freshwater wetlands are often surrounded by *Melaleuca viridiflora* forest, combining to provide wetland habitat for a diverse range of fauna species, particularly birds. Bolger Bay conserves an unusual semi-permanent wetland of *Phragmites* sp. and golden fern. This is not known to occur elsewhere on the island.

The ‘of concern’ *Corymbia tessellaris* (11.2.1) woodlands in Bolger Bay Conservation Park have recorded the vulnerable Sadlier’s skink *Pygmaeascincus sadlieri* (Hourigan and Ferguson 2013).

The *aguny* (mangrove) forests (11.1.4 and 11.1.4c) occur on intertidal flats, predominantly on the western side of the island, with the roots submerged during high tides. *Aguny* (mangroves) trap sediments and so contribute to land building, preventing erosion and excessive shifting of coastlines. They provide habitat, shelter, food and nursery areas for many marine species such as *guya* (fish) and *mudhuun* (crabs). The rusty monitor *Varanus semiremex* occurs in the tidal *aguny* (mangrove) areas and within slow moving freshwater streams and *melaleuca* swamps.

The *burungar* (salt pans) and *samphire* communities (11.1.1, 11.1.2, 11.1.3) contain dwarf chenopod shrubland and unvegetated salt pans with *samphire* *Tecticornia indica*. Shorebirds feed within these communities, including critically endangered eastern curlews *Numerius madagascariensis*, Pacific golden plovers *Pluvialis fluva* and grey-tailed tattlers *Tringa brevipes*. Important roosting habitat for *whimbrels* *Numerius phaeopus*, curlews, golden plovers and various sandpipers occur in some *burungar* (salt pan) sites.

### Threats

**Primary threat:** Pest plants, including introduced *salvinia* *Salvinia molesta*, *Siam weed* *Chromolaena odorata*, pink periwinkle *Catharanthus roseus*, *snakeweed* *Stachytarpheta urticifolia*, *praxelis* *Praxelis clematidea*, rubber vine *Cryptostegia grandiflora* and *lantana* *Lantana camara*. **Threat rating: High**

**Secondary threat:** Inappropriate *burhi* (fire) regimes within the fire-sensitive freshwater wetlands and *aguny* (mangrove) communities will impact through the scorching of the margins and the potential for introduction of biomass grasses in both the key value and surrounding vegetation communities. **Threat rating: High**


**Other threat:** Climate change is likely to increase extreme weather events (cyclones, high rainfall), damaging *aguny* (mangroves) and wetlands, and affecting ecosystems and species. Sea level rise will bring further impacts through flooding and dieback of *aguny* (mangrove) trees. **Threat rating: High**

**Other threat:** Loss of seasonal saltwater inundation through silting causing overabundance of broad-leave tree *Melaleuca leucadendra* within the *gawru* (lagoon) rather than the edges (11.3.27x1b). **Threat rating: High**

**Other threat:** Human impacts and disturbance, including development encroachment, visitor and community impacts. Inappropriate behaviour occurs at Bolger Bay with illegal motorbike riding, large parties and vehicle impacts on the dune communities. **Threat rating: Medium**

**Other threat:** Erosion and run off (from roads) damaging creek crossings and associated ecosystems. **Threat rating: Medium**

### Desired outcomes and strategic management directions

Desired outcome		
	The condition of coastal vegetation communities will be improved to 'good' in the long term through management of pests, <i>burhi</i> (fire) and human impacts.	
Threatening processes	Strategic management directions	Priority
<b>Pest plants</b>	Reduce the impact of weeds on the coastal wetland communities.	<b>1</b>
	Prevent the establishment of ecosystem-changing weeds in coastal vegetation communities.	<b>1</b>
<b>Inappropriate fire</b>	Improve extent and condition of coastal vegetation communities through appropriate <i>burhi</i> (fire) management of bordering ecosystems.	<b>2</b>
<b>Climate change</b>	Monitor condition of coastal vegetation communities and adapt management where required to minimise climate change associated impacts.	<b>3</b>
<b>Changes to seawater flow</b>	Monitor the silting of the seawater inlet to ensure seawater inundation occurs.	<b>4</b>
<b>Human impacts and disturbance</b>	Minimise human impacts to sensitive areas by restricting access, and educating visitors, developers and local community members.	<b>4</b>
<b>Erosion and run off</b>	Collaborate with Townsville City Council to maintain the road network to minimise disturbance to sensitive ecosystems.	<b>4</b>

See Appendix 1. Glossary for priority rating definitions.

## 4.7 The Magnetic Island National Park visitor experience

### Key value statement

Applies to Magnetic Island National Park

Description		Current condition	Current trend	Desired condition
The Magnetic Island National Park visitor experience	Condition and trend	●●●	↑	●●●●
	Assessment confidence	Adequate ●	Adequate ●	

Wulgurukaba Yunbenun Country draws people to experience the spectacular natural scenery of Yunbenun. The picturesque landscapes, seascape with large granite boulder headlands, hoop pines, sandy beaches and fringing coral reefs offer opportunities for a variety of recreation experiences.

The proximity to the regional city of Townsville allows for easily accessible locations for visitors to experience the island values, lifestyle and the values of the GBRWHA.

Historically, the island was popular with Townsville residents making day and weekend trips to enjoy picnics and swimming from the idyllic untouched *manggulanga* (beaches). Today, Yunbenun residents, and domestic, interstate and international tourists visit the island to enjoy the national and marine parks' spectacular scenery. Walking tracks and lookouts with superb views over the island and surrounding waters are very popular. Community members and visitors enjoy the many secluded and beautiful *manggulanga* (beaches) around the island, with swimming and snorkelling popular in the adjacent marine park waters.



Figure 13. The national park is important for tourism © Tourism and Events Queensland

Only 8 kilometres off the coast, the island is easily accessed by private vessels and passenger and vehicle ferries from Townsville. Accommodation, goods and services are available on the island, including public transport and car hire. Sealed and unsealed roads provide ready access to the walking trail network to access the national park and some *manggulanga* (beaches) on the eastern side of the island.

QPWS provides and maintains facilities and infrastructure at key visitor nodes, and manages over 20 kilometres of walking tracks and several associated lookouts within the protected area, mostly on the eastern side of the island. The Magnetic Island walking trail network encompasses a holistic approach to visitor infrastructure and recreational opportunities on the island, combining walking infrastructure both on the protected area and Townsville City Council land, forming 'routes'. The walking tracks traverse a diverse variety of dry tropical landscapes and plant communities, and lead to numerous constructed lookouts offering outstanding views over boulder-strewn headlands, picturesque *manggulanga* (beaches) and GBR waters off the east coast of the island. They also provide access to beautiful and remote bays and beaches on the eastern side of the island that are otherwise only accessible by boat.

Within the park, there are day use areas at Florence, Arthur and Balding bays, with minimal facilities, including basic toilets. The Forts Junction is a major visitor node, providing a car parking area with toilet and a hub for the bus network, and acting as an official entry to the national park. From this node, visitors access the popular Forts Walk that showcases the landscape, koalas in the wild, World War II cultural heritage and spectacular views. The Forts Walk is a key attraction on Magnetic Island,

attracting around 100,000 visitors each year. The Forts Junction and Forts Walk are the only QPWS visitor nodes with interpretative installations and signage.

The walking tracks are frequently used by local residents and visitors for fitness. The walking trail experience is a significant drawcard to Yunbenun and key tourism product. The walking trail network has also been used by commercial operators for a number of multisport and non-competitive events with a large number of participants. There are no regular guided tours by commercial operators on park. Educational groups seasonally use the Forts Walk.

### Threats

**Primary threat:** Walking tracks on park are constructed primarily of decomposed granite. Erosion and facility damage occur during rain events. Sometimes, parts of the track wash away entirely, causing the track to close temporarily during repairs and reconstruction. **Threat rating: High**

**Secondary threat:** Walking tracks on park are fragmented. Tracks often join with roads that visitors are required to traverse to continue their walk. This leads to visitor safety issues and causes confusion. Visitors regularly lose their way between lookouts and visitor facilities. All this results in a reduction of visitor experience. **Threat rating: Medium**

**Other threat:** Some visitor facilities and opportunities on park are inadequate for the number of visitors and expectations of the modern tourist. **Threat rating: Low**


**Other threat:** User conflict occurs in visitor areas across the park. Some private vessels anchor within some green zones and partake in inappropriate behaviour such as dumping rubbish and bringing domesticated dogs onto the island and onto walking tracks. This behaviour reduces the scenic amenity and other visitors' experience. **Threat rating: High**

**Other threat:** Vandalism and graffiti occasionally occur at constructed lookouts, detracting from visitor experience and potentially affecting visitor safety. **Threat rating: Low**

**Other threat:** General weathering causes deterioration of visitor facilities. **Threat rating: Medium**

**Other threat:** Pest plants reduce the visual amenity of visitor facilities on the island. **Threat rating: Low**

### Desired outcomes and strategic management directions

Desired outcome		
	The condition of visitor experience will be improved to 'good' in the long term through management of severe weather and visitor impacts, visitor safety, recreational development and natural deterioration of facilities.	
Threatening processes	Strategic management directions	Priority
<b>Storms and flooding</b>	Improve the condition and increase resilience of the track system through the development and implementation of a track management plan.	<b>1</b>
<b>Poor presentation</b>	Enhance visitor experience and safety through development and implementation of a track management plan.	<b>1</b>
<b>Pest plants</b>	Reduce impacts of weeds on visitor facilities and amenity.	<b>3</b>
<b>Natural deterioration</b>	Minimise impacts of weathering on visitor facilities through regular inspection and maintenance.	<b>4</b>
<b>Human intrusions and disturbance</b>	Minimise visitor impacts on visitor facilities.	<b>5</b>
<b>Inappropriate facilities</b>	Enhance the visitor experience through new visitor opportunities and experiences on park.	<b>5</b>

See Appendix 1. Glossary for priority rating definitions.

## 5. Management direction

QPWS manages protected areas and forests to protect their values and deliver our custodial obligations as a land manager. Levels of service (LoS) assessment allows QPWS to consider the management of each park in a state-wide context and determine desired levels of management effort for each park in a consistent and equitable way. LoS assessment lets QPWS staff and the public know what type or level of management activity to expect on each park, forest or reserve. There are five LoS ratings, ranging from 'acceptable' to 'exceptional': an acceptable rating is the minimum standard required to deliver good management and meet our legislative and custodial obligations.

The key areas for management in Magnetic Island National Park are *burhi* (fire) management, post-contact cultural heritage management, visitor management and field management capability. This section provides a **management direction statement** for each management theme, identifying its current LoS, desired LoS and the strategic management direction.

### Summary of management direction

A summary of the current and desired LoS for Magnetic Island National Park is shown below. Figure 14 provides a key to the LoS icons.

	Current LoS	Desired LoS
1. Wulgurukaba partnership and cultural heritage management	 Medium	 Very high
2. <i>Burhi</i> (fire) management	 Very high	 Very high
3. Pest management	 Medium	 High
4. Natural values management	 Medium	 High
5. Post-contact cultural heritage management	 Very high	 Exceptional
6. Visitor management	 Very high	 Very high
7. Community, partnerships and other interests	 High	 High
8. Field management capability	 Very high	 Exceptional
9. Operational planning and management support	 Medium	 Very high




Figure 14. Key to condition, trend and confidence icons



## 5.1 Wulgurukaba partnership and cultural heritage management

### Management direction statement

Description	Current level of service
Wulgurukaba partnership and cultural heritage management for Magnetic Island National Park	


The Wulgurukaba People’s connection to land and sea and their traditional lore and custom are key to the co-management arrangements with QPWS. Together, the Wulgurukaba People and QPWS will partner to manage Magnetic Island National Park to protect the integrity of the diverse natural, social and cultural values in accordance with traditional and contemporary knowledge. This management statement works in conjunction with the Reef Joint Management Program under the *Traditional Owner Partnerships Strategy 2022–2027*.

The Wulgurukaba People and QPWS will support each other to ensure the delivery of:

- the objectives of the ILUA through the memorandum of understanding for co-management
- recognition and respect for the Wulgurukaba People’s rights, interests, cultural values and aspirations
- the development of a First Nations cultural heritage strategy with QPWS.

Protecting and enhancing Wulgurukaba culture on Magnetic Island National Park is a priority for park management—protecting culturally significant areas in accordance with Wulgurukaba customary lore, enhancing and advocating Wulgurukaba culture, and visitors respecting Wulgurukaba culture. The Wulgurukaba culture needs to be protected and conserved for current and future generations. The rating provides the Wulgurukaba People and QPWS with a means for gauging resource requirements and staff training needs as well as infrastructure priorities.


### Desired level of service and strategic management directions

Desired level of service	
	Increase Wulgurukaba partnership and cultural heritage management to a ‘very high’ level of service through co-management.
Strategic management directions	
Custodial obligations	
Enhance existing formal partnerships with the Wulgurukaba People, including collaboration, discussions and working arrangements.	<b>1</b>
Maintain formal and informal agreements to manage cultural heritage sites.	
Level of service	
Support the Wulgurukaba People to build capacity and capability to manage cultural heritage values.	<b>1</b>
Improve knowledge of Wulgurukaba cultural sites and incorporate management options for sites in partnership with the Wulgurukaba People.	<b>2</b>
Build management capacity and opportunities for the Wulgurukaba People through employment, commercial activities, contracting and training opportunities.	<b>2</b>
Develop works and services contracts or other work placement arrangements with the Wulgurukaba People, particularly supporting the Yunbenun Ranger Program.	<b>2</b>
Engage QPWS staff in cultural learning opportunities and inductions to increase understanding and appreciation of Wulgurukaba culture.	<b>2</b>

\*KEY: Priority ratings: Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5.2 *Burhi* (fire) management

### Management direction statement

Description	Current level of service
<i>Burhi</i> (fire) management for Magnetic Island National Park	


*Burhi* (fire) management is core business for QPWS to protect life and property, mitigate *murdaburhi* (bushfires) and maintain natural diversity in accordance with the NCA and the *Fire and Emergency Services Act 1990* (Qld) for the control and prevention of fires. QPWS works cooperatively with First Nations peoples, state and local government agencies, rural fire brigades, adjoining landholders and local communities to manage fire across the landscape.



Figure 15. Planned burning on Magnetic Island National Park © Queensland Government

The strategic management direction in this management statement and the *Queensland Government’s Planned Burn Guidelines – Central Queensland Brigalow Belt Bioregion of Queensland* (1st edition) guided the formation of the *Magnetic Island National Park Fire Strategy 2018*, which details QPWS’s custodial obligations for protecting life and property, and *burhi* (fire) management desired outcomes for maintaining key values using fire management zones and fireline design.


### Desired level of service and strategic management directions

Desired level of service	
	<i>Burhi</i> (fire) will be managed to a ‘very high’ level of service through increased technical capacity, improved ecological knowledge, and continued consultation and stakeholder engagement to protect natural and cultural values and reduce risks to life and property associated with permanent residents, tourism facilities and a high number of visitors.
Strategic management directions	Priority
<b>Custodial obligations</b>	
Protection of life and property on reserves and neighbouring lands (also consistent with <i>Queensland Fire &amp; Rescue Service Act 1990</i> and QPWS <i>Good Neighbour Policy</i> and other policies as required), using an integrated system of <i>burhi</i> (fire) management zones, <i>burhi</i> (fire) lines, hazard mitigation and reduction techniques.	<b>1</b>
<b>Level of service</b>	
Include traditional burning practices of the Wulgurukaba People in <i>burhi</i> (fire) management.	<b>2</b>
Improve current approach to <i>burhi</i> (fire) management by increasing technical capacity in computer-based systems to improve fire planning and prioritisation.	<b>2</b>
Improve current knowledge and approach to <i>burhi</i> (fire) management through the monitoring, mapping and analysis of the <i>burhi</i> (fire) requirements for the key values.	<b>2</b>
Maintain current very high level of consultation and stakeholder engagement for <i>burhi</i> (fire) management.	<b>2</b>
Maintain the joint <i>burhi</i> (fire) management program with Townsville City Council.	<b>2</b>
Maintain current priority of <i>burhi</i> (fire) management to protect life, property and improve the condition of the key values.	<b>2</b>

\*KEY: **Priority ratings:** Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5.3 Pest management


### Management direction statement

Description	Current level of service
Pest management for Magnetic Island National Park	

Pest management is core business for QPWS to mitigate the threats to biodiversity in accordance with the NCA. QPWS has a responsibility under the *Biosecurity Act 2014* (Qld) to take all reasonable and practical steps to minimise the risks associated with plant and animal pests on lands under our control. Recognising that effective management of pests across the landscape is a shared responsibility, QPWS works cooperatively with the Wulgurukaba People, other state and local government agencies, landholders and natural resource management groups.

The strategic management directions in this management statement guide the of the *Magnetic Island National Park Pest Strategy*. The strategy details pest management objectives for preventing and mitigating pest impacts on key values and QPWS’s custodial obligations for managing pests and priority pest species.

### Desired level of service and strategic management directions

Desired level of service	
	Pests will be managed to a ‘high’ level of service through maintaining knowledge of current and emerging pests (location, extent, impacts and issues), increasing park biosecurity and enhancing quarantine and surveillance measures (e.g. at access points to the park).
Strategic management directions	Priority

#### Custodial obligations

Align pest management activities to prioritise protection of key values consistent with <i>Biosecurity Act 2014</i> (Qld).	<b>1</b>
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#### Level of service

Improve knowledge and understanding of current and emerging weeds and the impacts on natural values, including their distribution and extent.	<b>2</b>
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Implement the <i>Magnetic Island National Park Biosecurity Plan</i> to enhance quarantine and surveillance measures for weed management in consultation with Townsville City Council (e.g. at access points to the park).	<b>1</b>
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Improve knowledge of the impacts from feral cats and domesticated dogs on the fauna species within the park.	<b>2</b>
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Improve current approach to pest management through partnering with community and natural resource groups to undertake weed control and natural values management.	<b>2</b>
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Improve current approach to pest management through working with Townsville City Council to manage council and protected area margins and interface.	<b>2</b>
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Determine the impacts of the introduced agile <i>bali</i> (wallaby) population on the native <i>mangara</i> (rock wallaby) population and the natural values.	<b>2</b>
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Improve current approach to pest management by ensuring key values are protected from pest threatening processes as a priority.	<b>2</b>
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\*KEY: Priority ratings: Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5.4 Natural values management

### Management direction statement

Description	Current level of service
Natural values management for Magnetic Island National Park	

QPWS manages natural values in accordance with the NCA, *Environmental Protection Act 1994* (Qld), *Environmental Protection and Biodiversity Conservation Act 1999* (Cwlth), and relevant international agreement guidelines.


Magnetic Island National Park has significant natural values, including threatened regional ecosystems, threatened species, and species listed in international agreements. The condition of natural values will be monitored through the implementation of the *Magnetic Island National Park Monitoring and Research Strategy*.



Figure 16. Rock-wallaby © Tourism and Events Queensland

Threatening processes will be managed through the implementation of Magnetic Island National Park *burhi* (fire), pest and visitor strategies.


### Desired level of service and strategic management directions

Desired level of service	
	Natural values will be maintained to a 'high' level of service through improved scientific research and increased information.
Strategic management directions	
Level of service	Priority
Increase the level of participation of the Wulgurukaba People in natural values management.	2
Improve natural values management through incorporating scientific research and monitoring into on-ground management.	2
Improve natural values management through updating regional ecosystem mapping within protected areas.	2
Improve knowledge of fauna and flora species through targeted surveys and monitoring programs.	3
Improve knowledge of the condition of the vegetation communities through the collation of historical vegetation monitoring and the management of the health check program.	4
Improve consultation with research institutions and local community natural resource groups to develop monitoring programs for natural values.	3
Health check monitoring	
Continue to monitor the condition of natural key values through health check monitoring.	1

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5.5 Post-contact cultural heritage management

### Management direction statement

Description	Current level of service
Post-contact cultural heritage management for Magnetic Island National Park	

QPWS manages historic sites in accordance with the NCA, *Queensland Heritage Act 1992* (Qld) and *Historic Shipwrecks Act 1976* (Cth). The Fort Complex has been listed on the Queensland Heritage register with a Classification of ‘State Heritage’ since October 1992, meeting three of the cultural heritage criteria.

The strategic management directions in this management statement will guide the formation of the *Magnetic Island National Park Post-Contact Cultural Heritage Strategy*. The strategy details post-contact cultural heritage management objectives for preventing and mitigating impacts on key values.

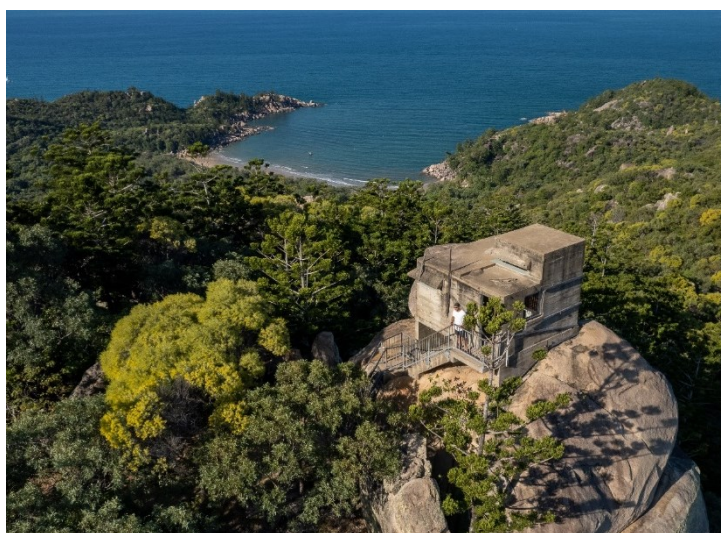



Figure 17. Fort Complex on Magnetic Island National Park © Tourism and Events Queensland

### Desired level of service and strategic management directions


Desired level of service	
	Post-contact cultural heritage management for Magnetic Island National Park will be improved to ‘exceptional’ level of service through improved consultation, capability of maintaining the sites and building knowledge and protection.

Strategic management directions	Priority
<b>Level of service</b>	
Establish consultation protocols with QPWS Principal Heritage Officer and the Heritage unit in Asset Services.	<b>3</b>
Increase management of cultural heritage sites by ensuring all significant historical sites are included in the heritage listing.	<b>3</b>
Maintain partnership with Townsville City Council regarding the access road and managing biosecurity for the historic site.	<b>3</b>
Improve knowledge of the historical sites through the collation of information from local heritage groups, online data sources and relevant external heritage experts.	<b>5</b>
Improve current approach to staff capability for managing the Fort Complex.	<b>2</b>
Maintain the current approach to managing the Fort Complex.	<b>2</b>
Improve knowledge of the whole heritage sites across the park through archaeological surveys within and outside of the heritage area.	<b>3</b>
<b>Health check monitoring</b>	
Monitor the condition of post-contact cultural heritage key values through health check monitoring.	<b>1</b>

\*KEY: **Priority ratings:** Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5.6 Visitor management

### Management direction statement


Description	Current level of service
Visitor management for Magnetic Island National Park	

Queensland’s parks, forests and reserves provide local communities and visitors from around the world with opportunities to experience our rich natural and cultural heritage, as well as a diverse range of recreational and ecotourism opportunities. QPWS seeks a responsible balance between visitor needs and sensitive park resources in accordance with the NCA and government policies and procedures. Permitted commercial tour activities, agreements and events are administered in accordance with the NCA and other relevant legislation.

The strategic management direction in this management statement will guide the formation of the *Magnetic Island National Park Visitor Strategy*. The strategy details management objectives for key values and the desired management outcomes for visitor sites through zoning. Zoning and visitor site management objectives consider the physical, social and managerial impacts of visitor experiences and sustainability of the sites. The strategy also explores visitor opportunities that complement other experiences in the landscape and region.

The condition of, and visitor satisfaction with, visitor experiences will be monitored through the implementation of the *Magnetic Island National Park Monitoring and Research Strategy*.

### Desired level of service and strategic management directions


Desired level of service	
	Visitor management for Magnetic Island National Park is managed to a ‘very high’ level of service through improved interpretation, building partnerships and managing impacts.

Strategic management directions	Priority
<b>Level of service:</b>	
Enhance visitor experience through improved interpretation focusing on the Wulgurukaba People cultural values.	2
Improve visitor management through work with Townsville City Council to develop joint signage when required.	3
Improve the overall approach to visitor management at key visitor sites by increasing compliance and patrols.	3
Improve visitor management by working with Townsville City Council to manage visitor impacts on council and protected area interfaces of mangkulanga (beaches), wetlands and burungar (salt pans).	3
Improve consultation with tourism bodies and Townsville City Council to determine current and future visitation trends and expectations.	3
<b>Health check monitoring:</b>	
Monitor the condition of visitor key values through health check monitoring.	1

\*KEY: Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5.7 Community, partnerships and other interests

### Management direction statement

Description	Current level of service
Community, partnerships and other interests associated with Magnetic Island National Park	

Queensland’s parks, forests and reserves provide sustainable environmental, economic and social benefits. The agency is committed to working with the community and its partners to ensure activities and infrastructure are ecologically sustainable and continue to benefit Queensland’s economic and social wellbeing as outlined in *Queensland Parks and Wildlife Service’s Master Plan* (QPWS 2014). Permitted activities are administered in accordance with the requirements of the NCA and other relevant legislation.




Figure 18. Working closely with partners to manage the island © Julie Carmody – Horseshoe Bay Rural Fire Brigade

Magnetic Island National Park is an important park for tourism, recreation and nature-based activities for both visitors and island residents.

Yunbenun has the largest population on any island in the GBR region. This creates challenges for managing impacts to the park, although fosters a strong community of groups and volunteers who undertake significant natural resource work and activities across the island and the park. The island community is broken up into four areas—Nelly Bay, Horseshoe Bay, Arcadia (Geoffrey and Alma bays) and Picnic Bay.


### Desired level of service and strategic management directions

Desired level of service	
	Community, partnerships and other interests will be managed to a ‘high’ level of service by maintaining the current approach to partnerships and community.
Strategic management directions	
Level of service	Priority
Improve current approach to community, partnerships and other interests through regular communication with Townsville City Council to develop long-term planning and resource work programs.	2
Maintain consultation with Ergon Energy and Telstra for the powerlines and communication towers and pits.	3

\*KEY: 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5.8 Field management capability

### Management direction statement

Description	Current level of service
Field management capability for Magnetic Island National Park	


Managing natural and cultural protected areas has varying degrees of complexity for island areas. Access issues due to tides and weather may inhibit management activities.

Field management capability is a measure of this complexity and considers the significance of the planning area’s values, potential threats, intensity of visitor use and community expectations. It considers the required proximity, frequency and intensity of on-ground management that is needed to manage key values and meet custodial obligations. The rating provides QPWS with a means for gauging resource requirements and staff training needs.



Figure 19. Yunbenun Rangers and QPWS working together to protect Yunbenun Country © DESI

### Desired level of service and strategic management directions

Desired level of service	
	Field management capacity will be increased to an ‘exceptional’ level of service through diversity of skills, inspection and monitoring.


Strategic management directions	Priority
<b>Level of service</b>	
Promote information exchanges between the Wulgurukaba People, QPWS and other stakeholders to facilitate the application of sharing knowledge and understanding.	1
Continue to provide opportunities for Yunbenun Rangers to work with QPWS and other organisations.	1
Improve field management capability through mentoring and training to maintain and promote a diverse skill set in rangers.	2
Maintain current site inspection regime.	2
Improve current field management capability and capacity by working with other work units to prioritise work programs.	2
Improve field management capability to undertake compliance during high visitation periods.	2

\*KEY: Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).




## 5.9 Operational planning and management support

### Management direction statement

Description	Current level of service
Operational planning and management support for Magnetic Island National Park	

Operational planning and management support covers all aspects of management direction, including information, assessments, systems, tools and monitoring. As with field management capability, the area’s values, potential threats, intensity of visitor use and community expectations are considered when determining the appropriate levels of service.

### Desired level of service and strategic management directions

Desired level of service	
	Operational planning and management support will be improved to a ‘very high’ level of service through expert support, increased engagement and initiative from technical staff.

Strategic management directions		Priority
<b>Level of service</b>		
Increase the opportunities for the Wulgurukaba People to co-manage natural and cultural values.		1
Increase expert support and advice facilitated by thematic coordinators as required.		1
Increase engagement and initiative from technical support staff to support and guide operational programs.		1

\*KEY: Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

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# Appendix 1. Glossary

## Interpreting key values-based management framework concepts

<b>Adaptive management</b>	The process of adjusting and improving how we manage parks, forests and reserves after assessing the outcomes of previous strategies and on-ground actions.
<b>Condition and trend</b>	The condition of a key value is assessed as either good, good with some concern, significant concern or critical. Trend describes what is happening to the condition: is it improving, stable or deteriorating? A key value's current condition is determined during the planning process. A desired condition is a realistic goal for the future condition of the key value. The ongoing condition of key values is assessed with regular health checks, monitoring and scientific assessment.
<b>Custodial obligations</b>	The requirements in legislation and government policies that we, as the land management agency, have to ensure QPWS's parks, forests and reserves are lawfully managed and good neighbours. Management provides for the protection of life and property, biosecurity and positive relationships with adjacent communities and landholders, as well as enhancing and protecting our values.
<b>Desired outcome</b>	A statement in the key value and management direction statements about moving from the current status (condition or LoS) to a desired status—the goal for management.
<b>Health check</b>	Basic form of monitoring that uses indicators and visual assessments to regularly evaluate the condition of key values. Regular health checks ensure QPWS can respond quickly to adverse change and redirect management priorities.
<b>Key value</b>	A natural, cultural or social value that is of most significance to that area. It is what makes the area special, and if lost, would diminish what makes the area distinct from others.
<b>Key value statement</b>	A statement in the management plan/statement that is developed for each key value. It describes the key value, current condition, desired condition, current threats and threat ratings, strategic management direction and priorities for further thematic strategy planning and on-ground management action.
<b>Level of service (LoS)</b>	A planning tool used to identify the acceptable management standard or level of resourcing that is required to maintain an area based on its values, threats and the complexity of management. There are five LoS ratings ranging from 'acceptable' to 'exceptional', noting that an acceptable rating is the minimum standard required to deliver good management and meet our custodial obligations under law as a land manager. A 'current' LoS rating is the level at the time of planning, the 'desired' LoS is where we want to be.
<b>Management direction</b>	How we manage each management theme to protect and enhance our key values and meet our custodial management obligations.
<b>Management direction statement</b>	A statement in the management plan/statement, developed for each management theme, that describes the current LoS, desired LoS, custodial obligations, strategic management direction and priorities for further thematic strategy planning and on-ground management action.
<b>Management theme</b>	QPWS has identified a number of management themes that are common to most of the parks, forests and reserves in our estate: fire management; pest management; natural values management; post-contact cultural heritage; visitor management; community, partnerships and other interests; field management capability; and operational planning and management support.
<b>Priority rating (key value SMDs)</b>	<p>A rating given to a strategic management direction according to the need for action to prevent further decline, stabilise current condition, or restore and enhance values, with consideration given to legislative obligations, cost, and social, economic and political factors.</p> <p>Critical (1) – Loss or very significant decline in the condition of key value/s is highly likely if action not taken OR significant improvement in the condition of key value/s is highly likely if action is taken.</p> <p>Very high (2) – Significant decline in the condition of key value/s is likely if action is not taken OR significant improvement in the condition of key value/s is likely if action is taken.</p> <p>High (3) – Decline in the condition of key value/s is likely if action is not taken OR improvement in the condition of key value/s is likely if action is taken.</p> <p>Moderate (4) – Some decline in the condition of key value/s is possible if action is not taken OR some improvement in the condition of key value/s is possible if action is taken.</p> <p>Desirable (5) – While decline in the condition of key value/s is not likely in the short term, the action, if taken, would help build long-term resilience of key value/s.</p>
<b>Priority rating (LoS SMDs)</b>	A rating given to an LoS or custodial obligation strategic management direction. A scale from 1 (extremely urgent) to 5 (not urgent or optional) is assigned, with consideration given to legislative obligations, cost, and social, economic and political factors.
<b>Strategic management direction (SMD)</b>	A broad strategy aimed at mitigating or removing a threat to a key value and maintaining or improving the condition of a park's value; or addressing the gap between the current LoS and desired LoS for a management theme.
<b>Threat or threatening process and threat rating</b>	Based on IUCN's (International Union for Conservation of Nature) classifications, QPWS has identified threatening processes that have the potential to affect Queensland's values (e.g. natural systems modifications, invasive species). Current threats to key values are identified and given a threat rating based on a combination of the extent of the impact, the severity of the impact, and the urgency of action.